DOCTOR OF CLINICAL PSYCHOLOGY (DCLINPSY)

Doctorate in Clinical Psychology: Main Research Portfolio

1) HOW EFFECTIVE ARE MEDIUM-TERM COGNITIVE BEHAVIOURAL THERAPY BASED INTERVENTIONS FOR BORDERLINE PERSONALITY DISORDER?; 2) AN EVALUATION OF THE CURRENT SCREENING TOOLS USED IN THE OFFENDER PERSONALITY DISORDER ; 3)MENTAL DEFEAT IN LONG TERM HEALTH CONDITIONS.

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CRITICAL REVIEW OF THE LITERATURE: HOW EFFECTIVE ARE MEDIUM-TERM COGNITIVE BEHAVIOURAL THERAPY BASED INTERVENTIONS FOR BORDERLINE PERSONALITY DISORDER?

SERVICE IMPROVEMENT PROJECT: AN EVALUATION OF THE CURRENT SCREENING TOOLS USED IN THE OFFENDER PERSONALITY DISORDER (OPD) PATHWAY

Abstracts

CRL: How effective are medium-term CBT interventions for Borderline Personality Disorder?

Objective: This systematic review and meta-analysis of randomised controlled trials (RCTs) examined the efficacy of 3-9 month long CBT interventions on the treatment of Borderline Personality Disorder.

Method: PubMed, APA PsychNet and Web of Science databases were searched and screened for suitable studies. Data on the included studies' characteristics, BPD and risk outcomes was extracted. Standardised mean difference (SMD) summary statistics were calculated and meta-analysed for BPD outcomes.

Results: Ten RCTs were identified with BPD outcomes. The SMD calculated was -2.56, (95% Confidence Interval -3.86, -1.26). Eight studies reported risk related outcomes. Three of these reported significant reductions in risk outcomes in comparison to control groups. There was significant heterogeneity amongst the studies.

Conclusion: Medium-term interventions appear to be effective in reducing BPD symptoms. Medium-term interventions appear less effective in reducing risk symptoms specifically. The results may reflect a difference in the target audience of medium-term interventions compared with traditional interventions. Further high quality RCTs are needed to allow further exploration and subgroup analysis.

Keywords: Borderline Personality Disorder, CBT.

SIP: An Evaluation of the Current Screening Tools used in the Offender Personality Disorder (OPD) Pathway

The Offender Personality Disorder (OPD) Pathway faces the difficult task of identifying individuals who are eligible for their service from the entire probation caseload. The OASys Personality Disorder Screen (OASys PD) is a national screening tool used by the pathway to help with this task. This paper describes a quantitative evaluation of the effectiveness of this tool for correctly identifying eligible individuals for the OPD service in the South of England. The service uses an additional screening method involving specialist clinicians interviewing probation officers about individuals on their caseload. A qualitative analysis of clinician's experience of this screening method is described here. Based on both analyses, recommendations to the service are

made for using the most time-effective and clinically-effective screening process. Continued use of the combination of the screening tool and the interviews is recommended with minor adjustments.

Keywords: OASYs, Personality Disorder, Screening, Probation, Offender Personality Disorder Pathway

MRP: Mental Defeat in Long Term Health Conditions

Objectives: This study aimed to explore whether mental defeat (MD) occurs in long term health conditions (LTCs) and if it does, whether it differs across conditions with differing symptomology.
Design: This study used a cross sectional questionnaire design with two groups; Inflammatory Arthritis (IA) and Chronic Kidney Disease (CKD).
Methods: Participants in both groups completed a battery of questionnaires about their experience of, and their beliefs and feelings about their health condition. A mixed model ANOVA and stepwise regressions were conducted to explore associations.
Results: A mixed model ANOVA revealed no significant differences in levels of MD between the two groups. However, both groups reported higher levels of MD than healthy controls. A stepwise regression revealed that MD, health anxiety, disability and catastrophizing were all associated with psychological distress. A second regression revealed that MD, age, and health anxiety predict fear of disease progression.
Conclusion: Mental defeat occurred in both LTCs in this study and there was no difference between the two conditions. Mental defeat was associated with psychological distress and fear of disease progression.

Keywords: Mental Defeat, CKD, Inflammatory Arthritis, Kidney Disease, Psychological Distress

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How effective are medium-term Cognitive Behavioural Therapy based interventions for Borderline Personality Disorder?

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This journal was picked due to its high impact factor and publication of similar systematic reviews with meta-analysis components

Abstract

Objective: This systematic review and meta-analysis of randomised controlled trials (RCTs) examined the efficacy of 3-9 month long CBT interventions on the treatment of Borderline Personality Disorder.

Method: PubMed, APA PsychNet and Web of Science databases were searched and screened for suitable studies. Data on the included studies' characteristics, BPD and risk outcomes was extracted. Standardised mean difference (SMD) summary statistics were calculated and meta-analysed for BPD outcomes.

Results: Ten RCTs were identified with BPD outcomes. The SMD calculated was -2.56, (95% Confidence Interval -3.86, -1.26). Eight studies reported risk related outcomes. Three of these reported significant reductions in risk outcomes in comparison to control groups. There was significant heterogeneity amongst the studies.

Conclusion: Medium-term interventions appear to be effective in reducing BPD symptoms. Medium-term interventions appear less effective in reducing risk symptoms specifically. The results may reflect a difference in the target audience of medium-term interventions compared with traditional interventions. Further high quality RCTs are needed to allow further exploration and subgroup analysis.

Keywords: Borderline Personality Disorder, CBT.

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How effective are medium-term Cognitive Behavioural Therapy based interventions for Borderline Personality Disorder?

To meet diagnostic criteria for Borderline Personality Disorder (BPD) in the DSM-V an individual "must show a pervasive pattern of instability of interpersonal relationships, self-image and mood, along with marked impulsivity, that begins by early adulthood and is present in a variety of contexts (American Psychiatric Association, 2013, p. 663). The UK prevalence of BPD is 0.4% for adults aged 16 and over with a greater prevalence in the younger adult female population; 1.4% of 16-34 year old woman compared to 0.3% of men (Macmanus, Meltzer, Brugha, Bebbington, & Jenkins, 2009).

There is much debate over the use of the diagnostic construct of personality disorder due to stigma, labelling and negative associations that are made between these individuals and certain challenging behaviours such as self-harm (Gunderson, 2001). There is a clear consensus among health care professionals that the individuals described above often engage in risk-taking behaviour and therefore need high levels of support and effective treatment that can be associated with extensive use of services and resources (Bender et al., 2001). Of those diagnosed with BPD 69-80% engage in suicidal behaviour (Soloff, A., Kelly, Cornelius, & Ulrich, 1994) and the suicide rates for this patient group is 9% (Linehan, Rizvi, Welch, & Page, 2008).

Great advances have been made in the treatment of BPD following the development of group and individual interventions from different theoretical schools e.g. Dialectical Behaviour Therapy (DBT), Schema therapy and Mentalisation-based treatment (MBT). DBT, Schema Therapy and MBT have all been shown to be effective treatments and beneficial in reducing core BPD pathology (Giesen-Bloo, van Dyck, Spinhoven, & et al., 2006; Stoffers et al., 2012). This review will focus on interventions which have evolved from CBT as it was deemed above the scope of this review to compare therapies from all theoretical backgrounds.

The biosocial theory of BPD suggests that individuals develop unhelpful ways of coping with extreme emotions due to a combination of biological predisposition and an invalidating environment when growing up (Linehan, 1993). Although the interventions in this review are varied, in line with this theory, they are all assumed to act on the same underlying processes e.g. give individuals the skills/knowledge to better regulate their emotions and relationships.

Although ‘traditional’ interventions such as DBT are effective in improving functioning in individuals with symptoms indicative of BPD (Wilks, Korslund, Harned, & Linehan, 2016) they are often lengthy and expensive e.g. DBT involves one group and one individual session per week and typically lasts 1-2 years. In the current climate resources are short and services need to consider whether individuals can be helped effectively with less input to meet the increasing demand for the NHS to provide more for less (Appleby, Galea, & Murray, 2014). A recent review of the characteristics of patients entering into IAPT services found 16% met criteria for borderline personality disorder and 69% were at high-risk of personality disorder (Hepgul et al., 2016). With increasing numbers of individuals coming into services with difficulties in emotion regulation, relationships and self-harming behaviour, services are struggling to provide the long-term interventions.

NICE (2009) guidelines recommend psychological therapy as a first-line treatment for individuals with characteristics of BPD however specifically advise against the use of brief psychological interventions (less than 3 months). In response to the increasing demand a number of medium-term interventions have been developed e.g. Systems Training for Emotional Predictability and Problem Solving (STEPPS), brief schema-therapy, short-term DBT and problem-solving therapy are all between 20 weeks and 6 months in duration. There is some evidence for the efficacy of each of these therapies individually. A meta-analysis of three randomised controlled trials (RCTs) and four longitudinal STEPPS studies concluded that the programme effectively reduced self-harming and improved social functioning (Somma et al., 2014). However, there is yet to be a synthesis of the highest quality research (RCTs) on whether medium-term interventions as a whole are effective in treating symptoms of BPD. A review which addressed whether current UK guidelines for BPD treatment are justified indicated that further research was needed to examine the efficacy of interventions of a shorter duration than the traditional one year plus (Omar, Tejerina-Arreal, & Crawford, 2014). The increased use of briefer interventions, and an ever-growing need for these, make a review of medium-term interventions timely.

The literature uses the terms short-term, medium-term and longer-term interchangeably. For clarity in this review ‘short-term’ is defined as interventions of less than 3 months, ‘medium-term’ is anything from 3 months to 9 months and long term is 9 months plus.

Aims of the Study

The aim of this systematic review was to identify and review available published evidence on medium-term CBT interventions for BPD, and to draw conclusions where possible on their efficacy.

Methods

Search Strategy

Web of Science, APA PsychNet and PubMed were searched for articles written from 1980 onwards (to coincide with the DSM-II BPD diagnosis). Search terms were grouped under two headings 'Diagnosis' and 'Intervention'. Diagnosis search terms included "borderline personality disorder", "BPD", "emotional instability", "EID" and "complex trauma". Intervention search terms included "behaviour therapy", "behavior therapy", "cognitive behav*", "CBT", "STEPPS", "schema" and "CAT". Reference lists of included papers were also screened.

Selection of the literature

Papers were imported into Endnote and duplicates were removed. Titles and abstracts were then reviewed to determine selection for full-text reading. Full texts of selected articles were studied to decide upon eligibility for inclusion.

The PICO framework used in this review for defining the (P)opulation, (I)ntervention, (C)comparison and (O)utcome of interest was as follows:

- P: individuals diagnosed with BPD using a diagnostic tool which confirms DSM criteria
- I: Interventions intended or designed to treat BPD that were underpinned by CBT and between 3 and 9 months in length and any modality (including CBT, DBT, STEPPS, Schema Therapy, Cognitive Analytic Therapy [CAT] and Acceptance and Commitment Therapy [ACT])
- C: studies with a control group (randomised)
- O: a self-report or clinician administered outcome measure of BPD symptoms and risk outcomes (including self-harm or suicidal behaviour) where available

Studies were included if participates were 18 years or over, had a confirmed diagnosis of BPD, used any of the following outpatient based interventions; CBT, DBT, STEPPS, Schema Therapy, CAT or ACT in any modality. Only randomised controlled trials where there was an outcome measure of BPD symptoms pre-and post-intervention were included.

Studies were excluded if the complete intervention was less than 3 months or more than 9 months in duration or was started/completed/partially completed in an inpatient setting. Single case studies, reviews, books, conference abstracts and papers written in languages other than English were excluded. When it became clear that there were sufficient RCTs for a systematic review and meta-analysis, all those non-randomised control group studies were excluded. RCTs which included long term interventions (9+ months) with outcomes taken at early time points (e.g. 6 months) were excluded as these interventions were deemed fundamentally different to interventions completed within the time-frame.

Inter-rater Reliability

A second rater screened 10% of the studies. The inter-rater agreement was initially 92%, with 100% agreement reached following discussion. A third rater was available to resolve any disagreement but was not needed.

Data and Analysis

Data on included studies' characteristics and outcomes were extracted to be used in the review. This included the means (M) and standard deviations (SDs) both pre and post intervention for outcomes measuring BPD symptoms. Change scores for the mean difference were calculated (post-intervention minus pre-intervention) and the SD of the change were imputed for each study. To impute the SD of the change an estimated correlation coefficient (corr) was required in the equation. A corr value of 0.99 was used. This value of corr was calculated from original data from one included study (Blum et al., 2008) and used as an estimate. This was the only study where enough information was reported to calculate the corr value and it is recommended that corr be imputed from another study in the meta-analysis, or estimated, when not enough information is available to calculate corr for each individual study .

A meta-analysis of the change from baseline scores was completed using the standardised mean difference (SMD) as a summary statistic because the studies used different outcome measures of BPD symptoms. A random-effects model was used as this is most appropriate when studies involved in a meta-analysis are assumed to have high heterogeneity in samples, interventions and conditions. The heterogeneity amongst the studies was assessed using the Cochran's Q test.

As the estimated corr was very high, a sensitivity analysis (meta-analysis) was completed using effect sizes calculated with an estimated corr value of 0.7. This involved running the meta-analysis again with change scores calculated using corr = 0.7 to check whether or not the results changed qualitatively and therefore were reliant on the estimated value or not.

Risk of Bias Assessment

To assess for risk of bias the Cochrane Collaboration's Tool (J. P. T. Higgins, Altman, & Sterne, 2011) was used. The tool is specifically designed for RCTs and assesses the risk of bias as a result of the methodology used. The tool focuses on selection bias (sequence generation, concealment of allocation), attrition bias, performance bias (participant and personnel blinding), detection bias (outcome assessment blinding) and reporting bias.

The review followed the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA; Moher, Liberati, Tetzlaff, & Altman, 2009).

Results

The initial search returned 3599 titles and abstracts. Duplicates were deleted and 2603 abstracts were then screened by the lead researcher. Of these, 240 papers were selected for full-text assessment. After careful reading 230 papers were excluded for the following reasons; not original research, wrong study setting, wrong intervention length, wrong intervention type, non-English language and wrong participant group. Hence, 10 studies were included in the review (Figure 1). No additional studies that were eligible for inclusion were identified through screening reference lists.

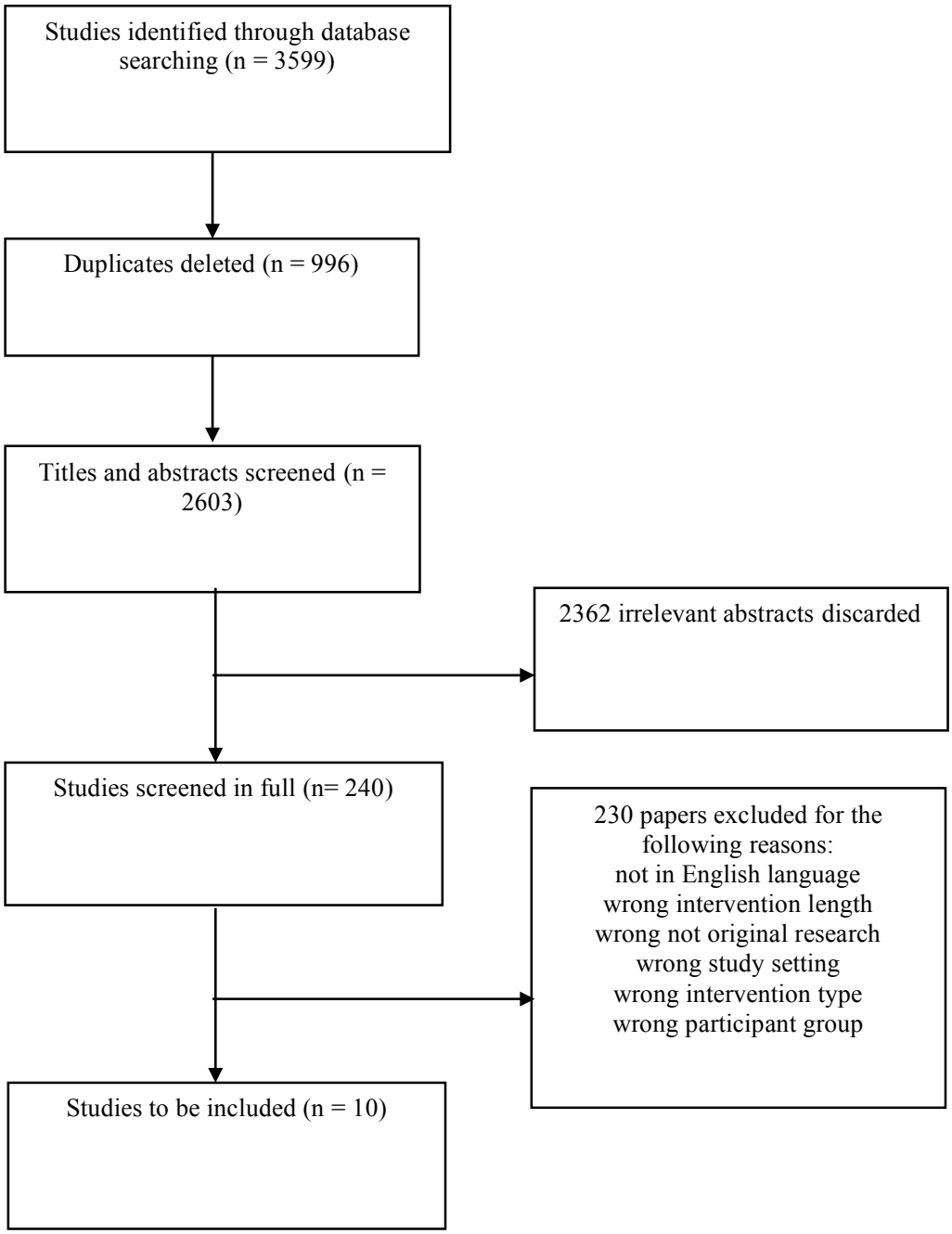

Figure 1. Flowchart for inclusion of eligible studies

Table 1.

Risk of Bias Rating for each study

	Selection Bias		Performance Bias	Detection Bias	Attrition Bias	Reporting Bias	Overall
	Sequence Generation	Allocation Concealment					
Andreasson et al. (2016)	Low	Low	High	Low	Unclear	Low	Fair
Blum et al. (2008)	Low	Unclear	Unclear	Low	Low	Unclear	Poor
Bos et al. (2010)	Unclear	Unclear	Unclear	High	Unclear	Unclear	Poor
Farrell et al. (2009)	Low	Unclear	Unclear	Unclear	Low	Unclear	Poor
Gratz et al. (2006)	Unclear	Unclear	High	High	Low	Unclear	Poor
Koons et al. (2001)	Unclear	Unclear	Unclear	Unclear	Unclear	Unclear	Poor
Moreton et al. (2012)	Unclear	Unclear	Unclear	High	Low	Unclear	Poor
McMain et al. (2017)	Low	Low	Low	High	Low	Unclear	Fair
Pascual et al. (2015)	Low	Unclear	Unclear	Low	Unclear	Unclear	Poor
Soler et al. (2009)	Low	Unclear	Low	Low	Low	Unclear	Fair

Risk of Bias

Based on the Cochrane Risk of Bias Tool (Higgins et al., 2011) three studies were assessed as fair quality in relation to risk of bias overall and seven were assessed as poor (Table 1). Many of the risk of bias items were assessed as unclear due to insufficient information being reported. Across the studies, risk of bias was deemed high for reporting bias and allocation concealment. Items where risk of bias was deemed low across the majority of the studies were sequence generation and attrition bias. Both performance bias and detection bias ratings were mixed across the RCTs. The three RCTs rated as fair quality were all DBT intervention studies

Study Characteristics

Table 2 summarises the included study's characteristics. A total of 636 participants took part in the 10 studies, published between 2001 and 2017. Participant numbers ranged from 20 to 124. Of the 10 papers, four were conducted in America, two in Spain and one in each of following countries; Denmark, Canada, Australia and the Netherlands.

Diagnosis

The studies used the following tools to confirm the DSM diagnosis of BPD; the Diagnostic Interview for Personality Disorders Revised (DIP-R; Zanarini, Frankenburg, Chauncey, & Gunderson, 1987); the Diagnostic Interview for Borderlines Revised (DIB-R; Zanarini, Gunderson, Frankenburg, & Chauncey, 1989); Borderline Syndrome Index (BSI; Conte, Plutchik, Karasu, & Jerret, 1980) and the Structured Clinical Interview for DSM-IV Axis II Disorders (SCID-II; First, Spitzer, Gibbon, & Williams, 1995).

Intervention Type and Control Groups

Four of the studies used DBT as the intervention and two used STEPPS. One study used each of the following interventions: ACT, Cognitive Rehabilitation (CR), Emotion Regulation Group Training (ERGT) and Schema Therapy. Eight out of the ten

Table 2

Study Characteristics for included papers

Study	Pp Characteristics			Intervention			
Author; Location	n (intervention; control)	age M (SD)	BPD Diagnostic criteria	Name	Length	Modality	Control Group
Andreasson et al. (2016); Denmark	108 (57;51)	31.69 (12.7)	2≧criteria from DSM-IV assessed by SCID	DBT	16 weeks	Group, individual and telephone	TAU (CAMS)
Blum et al. (2008); America	124 (65;59)	31.5 (9.5)	Structured Interview for DSM-IV Personality and SCID	STEPPS	20 weeks	Group	TAU
Bos, Bas van Wel, Appelo, and Verbraak (2010); The Netherlands	79 (42; 37)	32.9 (5.6)* 31.8 (9.2)**	PDQ and BPD module of the SCID	STEPPS	18 weeks	Group plus individual	TAU (inc individual therapy)
Farrell, Shaw, and Webber (2009); America	28 (16; 12)	35.3 (9.3)* 35.9 (8.08)**	Confirmed by DIPD-R and the BSI	SFT	30 weeks	Group	TAU (inc individual therapy)
Koons et al. (2001); America	20 (10; 10)	34.5 (7.4)* 35.4 (6.9)**	DSM-III-R criteria for BPD	DBT	6 months	Group, Individual, and consultation	TAU

Gratz and Gunderson (2006); America	22 (12;10)	34.5(7.4)* 35.4 (6.9)**	5 ≧ criteria for BPD and receiving a score of 8 or higher on DIB-R	ERGT	14 weeks	Group	TAU + waitlist
Moreton, Snowdon, Gopold, and Guymer (2012); Australia	41 (21;20)	3.5(7.4)* 35.4 (6.9)**	4 ≧ DSM-IV criteria-SCID	ACT	12 weeks	Group	TAU
McMain, Guimond, Barnhart, Habinski, and Streiner (2017); Canada	84 (42;42)	34.5(7.4)* 35.4 (6.9)**	DSM-IV diagnosis	DBT skills	20 weeks	Group	WL
Pascual et al. (2015); Spain	70 (36;34)	34.5(7.4)* 35.4 (6.9)**	DSM confirmed by SCID and DIB-R	CR	16 weeks	Group	PE
Soler et al. (2009); Spain	60 (29; 30)	34.5 (7.4)* 35.4 (6.9)**	DSM-IV criteria by SCID-II and DIB-R	DBT	13 weeks	Group	SGT

DIPD-R = Diagnostic Interview for Personality Disorders Revised; DIB-R = Diagnostic Interview for Borderlines Revised; PDQ = Personality Diagnostic Questionnaire, BSI = Borderline Syndrome Index; SCID-II = Structured Clinical Interview for DSM-IV Axis II Disorders; CAMS = Collaborative Assessment and Management of Suicidality; PE = Psychoeducation; CR = Cognitive Rehabilitation; SGT = Standard Group Therapy; DBT = Dialectical Behaviour Therapy; STEPPS = Systems Training for Emotional Predictability and Problem Solving; ACT = Acceptance and Commitment Therapy; ERGT = Emotion Regulation Group Training; SFT = Schema Focused Therapy, TAU = Treatment as Usual, WL = Waitlist

*= intervention group, **= control group

studies used control conditions that were either treatment as usual (TAU) and/or waitlist (WL) whilst two used psychoeducation and standard group therapy (or a psychodynamic orientation) respectively.

Intervention Format and Length

All of the interventions included a group component. Seven studies solely used a group intervention whilst three used group plus individual sessions or telephone support. The interventions lasted between 13 weeks and 30 weeks with a mean length of 18.3 weeks. The Dutch version of STEPPS was 18 weeks long whereas the study conducted in America used the standard intervention length of 20 weeks.

Study Outcomes

BPD Symptoms Outcomes

In total there were eight different measures of BPD symptoms used across the RCTs (Table 3). Nine studies used one measure of BPD symptoms and one study chose to use two.

Four studies used clinician administered scales: The Zanarini Rating Scale for Borderline Personality Disorder (ZAN-BPD; Zanarini et al., 2003), the DIB-R (Zanarini et al., 1989), the Clinical Global Impression- Borderline Personality Disorder (CGI-BPD) and the SCID-II (First et al., 1995). Four studies used self-report measures; The Borderline Evaluation of Severity over Time (BEST), the Borderline Symptom List 23 (BSL-23), a short version of the BSL (Bohus et al., 2007), the BSI (Conte et al., 1980) and the Borderline Personality Disorder Checklist- 40 (BPD-40) also known as the Borderline Personality Disorder Severity Index-IV(J. H. Giesen-Bloo, Wachters, Schouten, & Arntz, 2010).

Meta-Analysis Results

A meta-analysis on the effectiveness of the CBT interventions used in the 10 studies on BPD symptoms was conducted. For the study where two outcome measures of BPD were reported (Farrell et al., 2009) the self-report measure, as opposed to the diagnostic measure, was used in the analysis. The results of the meta-analysis found a large negative effect size, d= -2.56 (95% CI -3.86; -1.26; Figure 2). That is to say that the interventions were effective in reducing BPD symptoms (scores on outcome measures reduced).

Table 3

BPD Outcome measures, means and standard deviations pre-and post- intervention for each study

Study	BPD Measure	Intervention		Control	
		Pre M(SD)	Post M(SD)	Pre M(SD)	Post M(SD)
Andreasson et al. (2016)	Zan-BPD	10 (6.5)	7.6 (18.12)	9.5 (5.4)	7.4 (9.29)
Blum et al. (2008)	Zan-BPD	18.9 (6.8)	9.8 (8.06)	17.3 (7.0)	13.4 (7.68)
Bos et al. (2010)	BPD-40	106.8 (24.6)	79.7 (25.8)	101.1 (33.3)	95.1 (29.1)
Farrell et al. (2009)	BSI; DIB-R	34.75(7.67); 8.63 (1.41)	18.81 (9.47): 3.44 (2.76)	33.33 (4.77); 9.17 (0.94)	32.75 (5.9); 8.58 (1.51)
Gratz et al. (2006)	BEST	37.67 (12.11)	25.83 (5.72)	37.30 (11.91)	34.7 (10.81)
Koons et al. (2001)	SCID-II	6.8 (1.1)	3.6 (1.6)	6.7 (0.8)	4.2 (2.3)
Moreton et al. (2012)	BEST	44.57 (11.16)	32.76 (12.47)	49.80 (12.35)	47.42 (11.0)
McMain et al. (2017)	BSL-23	56.35 (16.51)	33.72 (18.70)	58.75 (19.64)	48.48 (22.21)
Pascual et al. (2015)	BSL-23	42.32 (3.9)	42.56 (5.0)	40.42 (4.14)	38.89 (4.86)
Soler et al. (2009)	CGI-BPD;	4.78 (0.8)	3.50 (1.2)	4.89 (0.33)	4.44 (0.52)

Zan-BPD = Zanarini Rating Scale, BPD-40 = Borderline Personality Disorder Checklist- 40, BSI = Borderline Syndrome Index, DIB-R = Diagnostic Interview for BPD Revised, BEST = Borderline Evaluation of Severity over Time, SCID-II = Structured Clinical Interview for DSM-IV Axis II Disorders, BSL-23 = Borderline Symptom Checklist, CGI-BPD = Clinical Global Impression- Borderline Personality Disorder. M = mean, SD = standard deviation

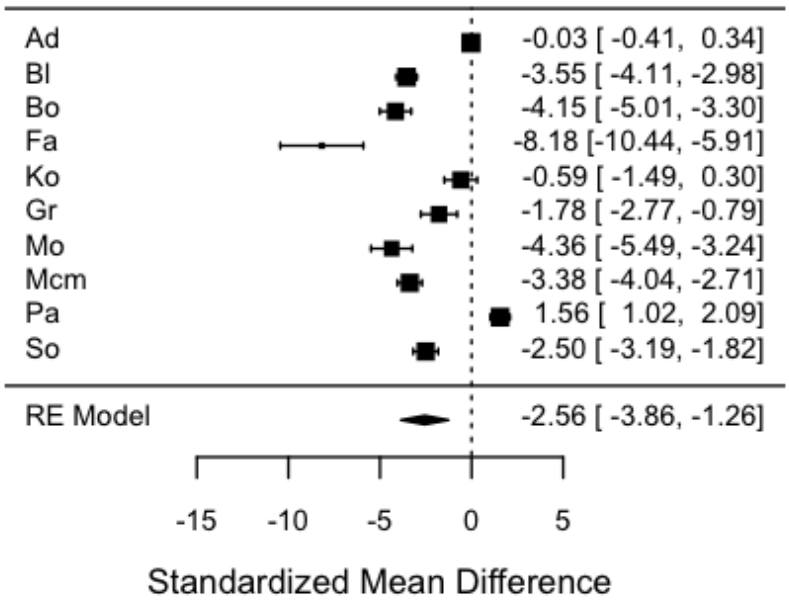

Figure 2. Meta-analysis using Standardised Mean Difference

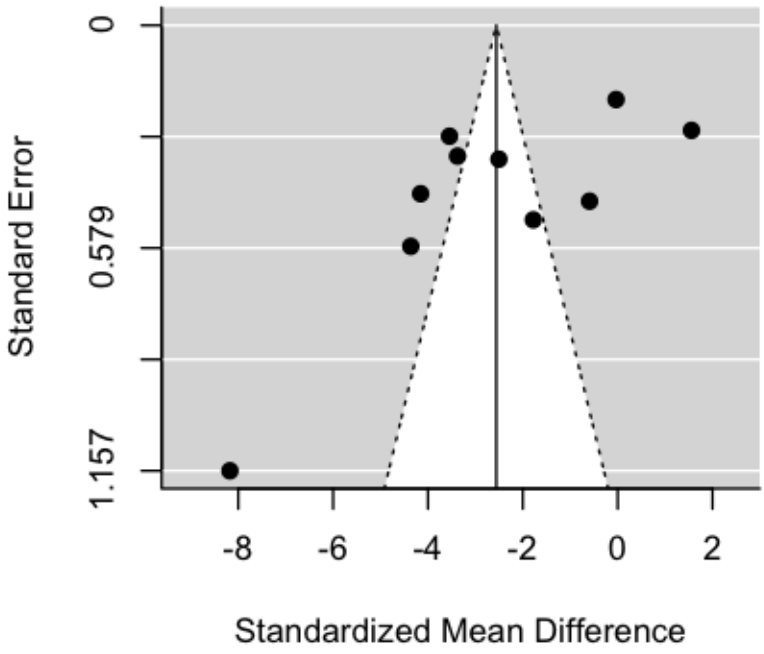

Figure 3. Funnel Plot of each studies' standardised effect size against standard error

There was significant heterogeneity amongst the 10 included studies and the Q test results were significant; $Q_{(9)} = 371.14$, $p < 0.001$. The SMD effect size was plotted against the standard error for each study in a funnel plot (Figure 3). The funnel plot is

asymmetrical with many points falling outside the inverted funnel, where 95% of studies are expected to fall if both publication bias and heterogeneity are not present. Whilst the heterogeneity of studies is likely to have contributed to this asymmetry, chance and reporting bias may also have contributed (Sterne et al., 2011).

Sensitivity Analysis.

The results of the sensitivity analysis (completed using estimated corr = 0.7) did not differ qualitatively; there was still a large negative effect size d= -0.77 (95% CI -1.77; -0.37). This means that the results of the meta-analysis do not rest too heavily on the imputed value of corr (0.99) and the qualitative result can be taken with more reassurance.

Narrative Review of BPD Outcomes

Six of the studies reported statistically significant between group differences in favour of the intervention for BPD symptom outcomes. The interventions used in these studies were STEPPS, ERGT, ACT, DBT and Schema Focused Therapy. The largest effect size was found for Schema Focused Therapy. The intervention length in these studies varied from 12 weeks to 30 weeks.

Four of the studies found no significant difference between the intervention and the control group for BPD symptom outcomes. Three of these studies used DBT interventions and the fourth used CR. The intervention length in these studies varied from 13 weeks to 26 weeks.

Risk Outcomes

Eight of the ten studies included one or more outcome measure of risk symptoms. Three studies reported outcomes of risk of either incidence (%) or frequency (n) of self-harm or suicide attempts, four studies used outcome measures relating to self-harm and suicidality (Deliberate Self-Harm Inventory; DSHI, parasuicidal subscale of the BPDSI-IV, Beck Suicide Ideation Scale; BSIS) and two studies measure hopelessness (Beck Hopelessness Scale; BHS). Of the eight RCTs that measured risk only three of them reported a statistically significant difference in reduction of risk behaviours in the intervention group compared to the control group (see table 4 for a summary of the risk related outcome measures used by the different studies and where significant differences were found). Authors of three of the studies where no significant differences were found suggested that a longer or more intensive

intervention (i.e. more than a single mode of DBT) may be needed to see an effect on risk behaviours. One study explained their neutral results as a consequence of the study being underpowered and the DBT delivery being poorer than in other trials. The three interventions which produced significant reductions in risk were ACT (Moreton et al., 2012), ERGT (Gratz & Gunderson, 2006) and DBT (Koons et al., 2001). There were not clear differences between these studies and the others in terms of length, type or format of the interventions. The lengths were 12, 14 and 26 weeks; two were solely group interventions and one used group plus individual sessions.

See Table 5 for a summary of each studies' quality rating and outcomes.

Table 4

Outcome measures used to assess risk and associated significance levels for each study

Author (Year)	Risk Outcomes Used	Significant between group difference found?
Andreasson et al. (2016)	New self-harm in the group (%)	No
	Suicide attempts in the group (%)	No
	BSIS	No
Blum et al. (2008)	Frequency of deliberate self-harm and suicide attempts (%)	No
Bos et al. (2010)	% of the group > the cut-off on the impulsivity and Parasuicidal subscales of the BPDSI-IV	No
Gratz et al. (2006)	Frequency of self-harm as measured by the DSHI	Yes (<0.05)
Koons et al. (2001)	BSIS	Yes ($p<0.05$)
	BHS	Yes ($p<0.01$)
	Parasuicide (Parasuicide Interview)	Yes ($p<0.1$)
Moreton et al. (2012)	BHS	Yes ($p<0.05$)
McMain et al. (2017)	Frequency of self-harm/suicide attempts from Lifetime Suicidal Attempt Interview and DSHI	Greater reduction in DBT, approached but didn't reach significance
Soler et al. (2009)	Rated self-injury and suicide attempts	No

BSIS = Beck Suicide Ideation Scale, BHS = Beck Hopelessness Scale, DSHI= Deliberate Self-Harm inventory, BPDSI-IV= Borderline Personality Severity Index

Table 5

Summary Table for included RCTs

Author Name (Year)	Significant result for BPD Outcome?	Significant result for Risk Outcome?	Quality Rating
Andreasson et al. (2016)	No	No	Fair
Blum et al. (2008)	Yes	No	Poor
Bos et al. (2010)	Yes	No	Poor
Farrell et al. (2009)	Yes	No	Poor
Gratz et al. (2006)	Yes	Yes	Poor
Koons et al. (2001)	No	Yes	Poor
Moreton et al. (2012)	Yes	Yes	Poor
McMain et al. (2017)	Yes	Nos	Fair
Pascual et al. (2015)	No	No	Poor
Soler et al. (2009)	No	No	Fair

Follow up

Six of the ten studies included a follow-up period. Two studies had a follow-up period of 3 months (McMain et al., 2017; Moreton et al., 2012), three studies had a follow-up period of 6 months (Bos et al., 2010; Farrell et al., 2009; Pascual et al., 2015) and one had a follow-up period of one year (Blum et al., 2008) All differences/improvements observed post-intervention were maintained or strengthened at follow-up in four studies, and the majority of improvements were maintained in the other cases. McMain et al. (2017) report that reductions in self-harm frequency, as measured by the LSASI, did not reach statistical significance post-intervention. However, by follow-up (12 weeks later) this difference was statistically significant ($p<0.05$) in comparison to the control group.

Other Outcomes

In addition to the primary outcome measures of this review (BPD symptoms and risk), the studies reported a variety of outcomes reflective of the variety of difficulties/high symptomatic heterogeneity experienced by individuals with BPD

(Hasler, Hopwood, Jacob, Brandle, & Schulte-Vels, 2014). Outcome measures included psychological distress, risk, mood, functioning, quality of life and emotion regulation. It was deemed above the scope of this review to include all of these outcomes in analysis; however, additional outcome measure used by each study are provided for information in Appendix A

Discussion

Summary of Results

This review summarised 10 RCTs on medium-term CBT interventions. A meta-analysis found a large effect for the efficacy of the interventions on the treatment of BPD symptoms. There was significant heterogeneity amongst the included studies which was expected due to the variety of types of CBT interventions, lengths of interventions, outcome measures and participants used. The asymmetry displayed on the funnel plot suggests that the effect calculated in the meta-analysis may be an overestimation of the true intervention effects. Indeed, meta-analyses where there are a small number of studies and significant heterogeneity are prone to false-positive findings, therefore the results described here may need to be taken with caution (Higgins & Thompson, 2004).

Of the eight RCTs which specifically measured risk outcomes, only three reported significant difference between the intervention and the control groups. The studies where this difference occurred had small sample sizes compared to the other studies in the review. The results suggest that medium term interventions are not consistently effective in reducing risk. One explanation for this may be that medium-term interventions are not as focussed on risk reduction as their long-term counterparts. For example, studies were less likely to use specific risk measures indicating more of a focus on BPD symptom reduction. In contrast, long term interventions' primary outcome measures relate to risk (e.g. reduction in self-harm or suicidal behaviours). It may be that longer and/or more intensive interventions are required to effectively reduce risk behaviours as suggested by authors of the studies. Longer term treatments have been shown in the literature to be effective in reducing suicidal and self-injurious behaviours (Kliem, Kroger, & Kosfelder, 2010; Panos, Jackson, Hasan, & Panos, 2013).

One study exploring the different active components of DBT for high risk individuals compared group, individual and combined modalities. Authors concluded that combined (standard) DBT is superior for some cases and that interventions including the group skills component are more effective than those without (Linehan et al., 2015). The results of this review do not fit with this pattern (multiple components of DBT, including skills, did not result in superior outcomes), further highlighting the differences between long-term and medium-term DBT.

Strengths and Limitations of this review

A strength of this review is that it is the first review to specifically include only RCTs of medium-term interventions, an important area clinically as demands on service's resources and time increases. The broad intervention category (CBT-based approaches as opposed to only including traditional CBT interventions) will have contributed to the high heterogeneity amongst studies however this reflects the nature of the variety of interventions on offer for individuals with BPD, making the results more applicable for clinicians. A further strength of this review is the meta-analysis method used. Using change scores instead of final scores in the analysis means differences between the groups at baseline are controlled for. In addition, the sensitivity analysis results are reassuring that assumptions made when imputing scores were appropriate.

Limitations of this review include the relatively small number of RCTs included. This meant that subgroup analysis was not possible, despite the overall meta-analysis result suggesting significant heterogeneity amongst the studies. A further limitation is the lack of inter-rating for the risk of bias and the data extraction for the meta-analysis, making both of these areas more open to error. Evidence based interventions that are not CBT based, e.g. MBT, were also missed by this meta-analysis.

This review used the Cochrane risk of bias tool which is deemed gold-standard to use in reviews of RCTs. However, the tool was initially designed for drug-controlled trials and therefore the applicability and usefulness in psychological intervention trials is questionable. Because of the differences in the intervention set up and delivery it is harder for psychological interventions to score well in comparison to drug trials, e.g. blinding is nearly impossible in psychological intervention RCTs. Risk of bias is also

only one facet of quality when reviewing psychological interventions studies. Many other important factors of quality exist, e.g. how accessible the article is or how clinically relevant/applicable the results are, however the Cochrane tool misses all of this. Whilst the RCTs in this review did not score highly on the risk of bias tool, many would score highly in terms of their accessibility and clinical usefulness.

Limitations of this area of research

Whilst there were enough RCTs that fell within the inclusion criteria available to complete this systematic review and meta-analysis, more research is needed to strengthen the tentative conclusions drawn and allow for subgroup analysis. The vast majority of RCTs on psychological interventions for BPD relate to the traditional interventions such as DBT which are approximately a year or more in length. Further research is needed to add to the number of RCTs on the medium-term CBT interventions and the field would benefit from some consistency in the BPD outcome measures used.

To reduce the risk of bias in this field of research future RCTs need to report more detail of the study methodology and improve potential reporting bias and selection bias. This would include publishing more studies with negative findings in order to reduce any publication bias that may be occurring.

Clinical Implications

The results of this review suggest that CBT interventions between three and nine months are effective in reducing BPD symptoms, and that these changes are maintained at follow-up. The effectiveness of the intervention does not seem to be clearly influenced by length; RCTs which had significant outcomes had a wide range of intervention lengths. In relation to intervention type, it may be that DBT is less effective in its shorter form than the other interventions as three of the four studies which did not report a significant difference in BPD outcomes used DBT.

Comparing these results to the literature, medium term interventions appear to be less effective than longer-term interventions, such as standard DBT, in reducing specific risk outcomes. This means that medium term interventions, excluding DBT, may be more suitable for reducing BPD symptoms globally in low risk individuals, e.g. in primary care, and that standard DBT may be most effective for high risk individuals

e.g. in secondary care. Both medium-term and long-term interventions are likely to act on the same underlying processes mentioned earlier and both teach individuals emotion regulation skills and skills to manage their relationships. It may be that longer interventions allow those who engage in risky behaviours to practice and consolidate their skills, often with extra support, and a shorter intervention may not allow for this to occur even when similar skills have been taught. Medium-term interventions may also be more cost effective; all of the interventions in this review were primarily group format therefore less resource heavy than interventions with an additional individual therapy component.

Many meta-analyses of DBT calculate effect sizes for suicidal and self-injurious behaviours specifically, whereas this review focused on BPD outcome measures. Whilst global BPD outcome measures may address risk issues within them, the focus is not specifically on risk. This may reflect a 'lower-risk' population being recruited in to medium-term interventions, both clinically and in research.

Implications for Future Research

Whilst the results presented here suggest that medium-term and long-term interventions can both be effective for different populations, the full benefits of medium term compared to long-term are yet to be established. In line with this comparison, researchers should consider whether there is a difference in the severity at baseline of participants in both medium-term and longer-term interventions. Further research comparing medium term interventions to long-term interventions is needed to establish whether medium-term interventions are more time effective (e.g. greater change or maintenance of change) than the longer, traditional interventions.

Competing Interests Declaration

Nothing to declare.

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An evaluation of the Current Screening Tools used in the Offender Personality Disorder (OPD) Pathway

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This journal was picked as it disseminates research about theory and practice of work with offenders so fit with the content of this piece of work.

Abstract

The Offender Personality Disorder (OPD) Pathway faces the difficult task of identifying individuals who are eligible for their service from the entire probation caseload. The OASys Personality Disorder Screen (OASys PD) is a national screening tool used by the pathway to help with this task. This paper describes a quantitative evaluation of the effectiveness of this tool for correctly identifying eligible individuals for the OPD service in the South of England. The service uses an additional screening method involving specialist clinicians interviewing probation officers about individuals on their caseload. A qualitative analysis of clinician's experience of this screening method is described here. Based on both analyses, recommendations to the service are made for using the most time-effective and clinically-effective screening process. Continued use of the combination of the screening tool and the interviews is recommended with minor adjustments.

Keywords: OASYs, Personality Disorder, Screening, Probation, Offender Personality Disorder Pathway

An evaluation of the Current Screening Tools used in the Offender Personality Disorder (OPD) Pathway

The prevalence of individuals who meet the diagnostic criteria for personality disorders is estimated to be around 5-10% in the general population and in excess of 50% in prison and forensic samples (Fazel & Danesh, 2002; Motz et al., 2015). A recent Swedish study reported the prevalence of Emotionally Unstable Personality Disorder (EID) to be 19.8% among male offenders on probation (Wetterborg, Långström, Andersson, & Enebrink, 2015). It has been suggested that offenders who meet the criteria for a diagnosis of personality disorder may be at a higher risk of committing serious crimes (Blackburn, 2000) and that those who meet the criteria for 'dangerous and severe personality disorder (DSPD)' have quicker reconviction rates for more serious offences (Coid et al., 2007). It should be noted that the DSPD term is not a clinical classification (Howells, Kirshnan, & Daffern, 2007). The link between the presence of difficulties indicative of a personality disorder and offending has led to the provision of services that support high risk individuals on probation caseloads which aim to minimise both risk of harm and social costs.

Identifying Appropriate Individuals

In order to provide an effective provision these services first need to identify the individuals who meet their criteria from the National Probation Service (NPS) caseload. There are several ways to establish whether individuals might meet diagnostic criteria for personality disorder; unstructured clinical interviews, psychometric questionnaires and semi-structured interviews such as the International Personality Disorder Examination (IPDE). These are time consuming and require training to administer which makes them unsuitable for the volume of individuals on the probation caseload. A national tool called the Offender Assessment System Personality Disorder Screen (OASys PD) is used to identify those offenders with particularly complex and challenging needs to bring into the service to manage and minimise risk.

The OASys PD consists of is a 10-item check-list (DSPD Score) and an additional four criteria which staff complete (see Appendix C). The DSPD score

contains items indicative of diagnostic features of "Antisocial Personality Disorder and Psychopathy" (London Pathways Partnership, 2017). The presence of seven or more items should 'indicate concern' however over 30% of offenders within probation's caseload score at or above the suggested cut off (Motz et al., 2015). The OASys PD was originally developed as a screen for Antisocial Personality Disorder (ASPD) with a Positive Predictive Value (PPV) of 85% on the initial validation prison sample (Bui, Ullrich, & Coid, 2016). Guidelines for the use of OASys highlight the limitation that traits of other diagnoses e.g. EID may be missed (Motz et al., 2015). There is yet to be a nation-wide evaluation of the effectiveness of this tool for correctly identifying individuals who meet the criteria for the specialist offender services.

There is limited research discussing the difficulty of identifying individuals with difficulties indicative of personality disorder in probation samples. Minoudis, Shaw, Bannerman, and Craissati (2012) found that using the DSPD score alone yields a number too large to be meaningful and identification rates by probation officers vary considerably from one individual to the next. However, combining markers of personality problems, the DSPD items and offence severity alongside screening meetings between probation officers and psychologists allows for high specificity and sensitivity in identification. There is also evidence that providing psychological consultation to probation staff can improve outcomes for the service (Clark & Chuan, 2015).

Service Context

The specialist offender service described here is a psychologically led service which is contracted to provide the National Personality Disorder Strategy (OPD Pathway) within three local delivery units of the National Probation Service in the South of England. The OPD pathway use the OASys PD screen to identify eligible individuals from the probation caseload. The tool is viewed by many clinicians in the OPD pathway to be too simplistic and to be producing too many errors (false positives and false negatives). Until now the above perception had just been anecdotal and no evidence for the effectiveness of the screening tool in identifying eligible individuals existed.

The need to accurately screen for individuals with difficulties reflective of personality disorders does not ignore the many problems associated with the diagnostic construct. The diagnosis can pathologise an individual's response to early relational trauma and is associated with significant stigma. The OPD pathway recognises this and does not require a formal diagnosis for individuals to be eligible for their service, however a screening tool associated with this diagnostic construct is necessary in order to provide an effective service to the correct individuals.

In response to the perception of the OASys PD tool being too simplistic the OPD pathway implemented an additional screening process; interviewing probation officers about their caseload to identify those with complex/challenging needs that could be considered to reflect a diagnosis of personality disorder. The screening interview is a lot more time consuming than the OASys PD tool, taking 1-2 hours plus additional admin time (per probation officer caseload). An evaluation of this new process was indicated so that the most time-effective and accurate process for identifying eligible offenders is used.

Aims

The project was split into three stages. The aims, and any associated research questions, of these stages were:

1) Establish how the OASys PD tool compared to clinical judgement about appropriateness of an individual for the OPD service
    - How accurate is the OASys tool at correctly identifying individuals who need the service? The service hypothesised that the OASys was missing 10-15% of individuals who needed the service.
2) Establish clinicians experience of the screening interviews
    - Are the screening interviews helpful and can they be improved?
3) Make recommendations, as necessary for improvements

Evaluation Part 1: OASys Analysis

Method

Sample and data collection.

Both Research and Development (R&D) approval from the NHS trust and ethical approval from the University of Bath were gained for both part one (quantitative) and part two (qualitative) of this evaluation.

Anonymous data on the outcome of the screening tool was provided by the service e.g. the individual was screened in when they met seven or more of the items on the DSPD checklist or the presence of two of the four additional criteria, and otherwise screened out. This was compared to data provided on the subsequent pathway of the individual (e.g. whether they were actually brought into the service or were screened out at a later date). The data came from 1368 individuals from four geographical areas covered by the service and is routinely collected by the service. Each data point was given a code from 1-4.

Table 1

Codes used during data analysis

Code	Meaning
1	True positives, where the OASys PD screened them in and they were deemed suitable/remained in the service
2	False positives, where the OASys PD screened them in but they were later screened out/not deemed suitable for the service
3	False negatives where the OASys PD screened the individual out but they were later brought into service/deemed suitable by a different process e.g. screening interviews
4	True negatives where the OASys PD screened them out and they remained out of the service/not suitable

After the initial coding 10% of the data was double-checked to ensure integrity of the coding. Totals of codes 1-4 were calculated and used to calculate the Positive Predictive Value (PPV) and Negative Predictive Value (NPV) of the OASys PD screen. PPV refers to the probability that an individual with a positive screening test truly has the 'disorder'.[1] PPV was calculated using the following equation; True positives/(true

[1] These terms are from medical statistics. In this research, a positive result meant that the individual met criteria for the service and were appropriately screened in, rather than 'truly having a disorder'

positives + false positives). NPV refers to the probability that an individual with a negative screening test truly does not have the 'disorder'.[2] NPV was calculated using; True negatives/(true negatives + false negatives).

Results

Data from one of the four probations areas was excluded due to the extensive number of data gaps. Data gaps occurred where there was not sufficient information recorded to identify the pathway of the individual in or out of the service. Data gaps from the other three areas equated to 17% of the total data points. Data from a total of 1179 individuals, from three probation areas, was used in the final analysis.

Analysis revealed a PPV of the OASys PD Screen of 72%. This means that for the data analysed a positive result on the OASys screen would have correctly identified an individual who did need the service 72% of the time. The NPV was calculated to be 91%. For the data analysed a negative result on the OASys screen would have correctly identified an individual who did not need the service 91% of the time. Table 2 shows the total numbers of True Positives, False Positives, False Negatives and True Negatives respectively.

Evaluation Part 2: Clinician's View of Screening Process

Method

Participants and data collection.

A pool of 14 clinicians from the OPD service were invited to participate in a focus-group on the experience of the screening interviews and the screening process. Eligibility criteria were that the individual was a member of the OPD service who had experience of conducting screening interviews with probation officers; all 14 invited clinicians met this criterion. Clinicians were provided with information on the purpose of the group and the proposed interview schedule (see Appendix D) by email and were asked to confirm their interest in participation before the day of the focus-group. Six individuals confirmed their interest in the focus-group prior to participation and five

[2] Similarly, a negative result would mean that the individual had appropriately been screened out of the service as they didn't meet the criteria

Table 2

Total numbers of screening outcomes.

Type	Number identified	% of Total
True Positive	556	47
False Positive	214	18
False Negative	35	3
True Negative	374	32
Total	*1179*	*100*

individuals took part on the day.

The focus-group lasted one hour and took place at the end of a Team Away Day. The focus-group was facilitated by the lead researcher (ZM) using a semi-structured interview protocol and was audio-recorded. Written consent was obtained from all individuals.

Analysis.

The focus-group was transcribed and analysed using the Classic Framework Analysis Approach described by Krueger and Casey (2009). This approach was chosen due the advantages of a systematic approach to analysis that was designed specifically for focus-groups. The epistemological stance of the researcher conducting the analysis was of Critical Realism. Once the main themes and sub-themes had emerged these were checked with a second researcher and shown to individuals in the service with the opportunity to comment/feedback on them.

Results

Analysis of the focus groups revealed a number of key findings which are summarised in relation to three questions. The themes in relation to Question 1 (What works well about the screening interviews?) were; providing reflection on cases, increasing awareness of probation staff and fulfilment of core roles of the service (see Figure 1).

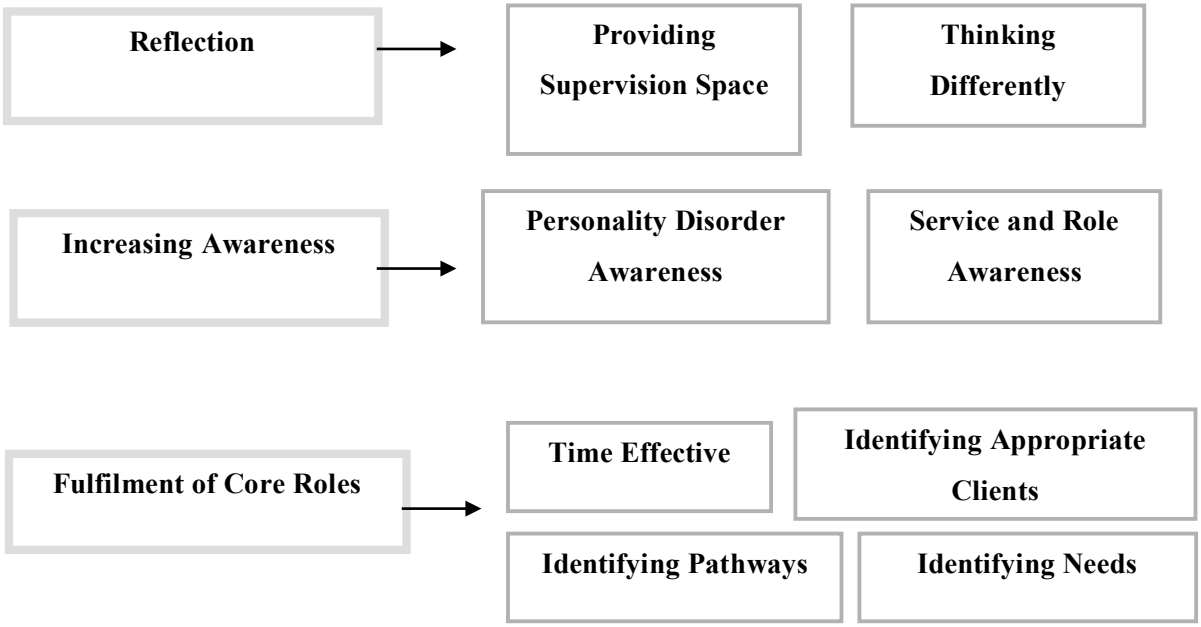

Figure 1. Diagram of Themes (Left) and Subthemes (Right) in relation to Question 1

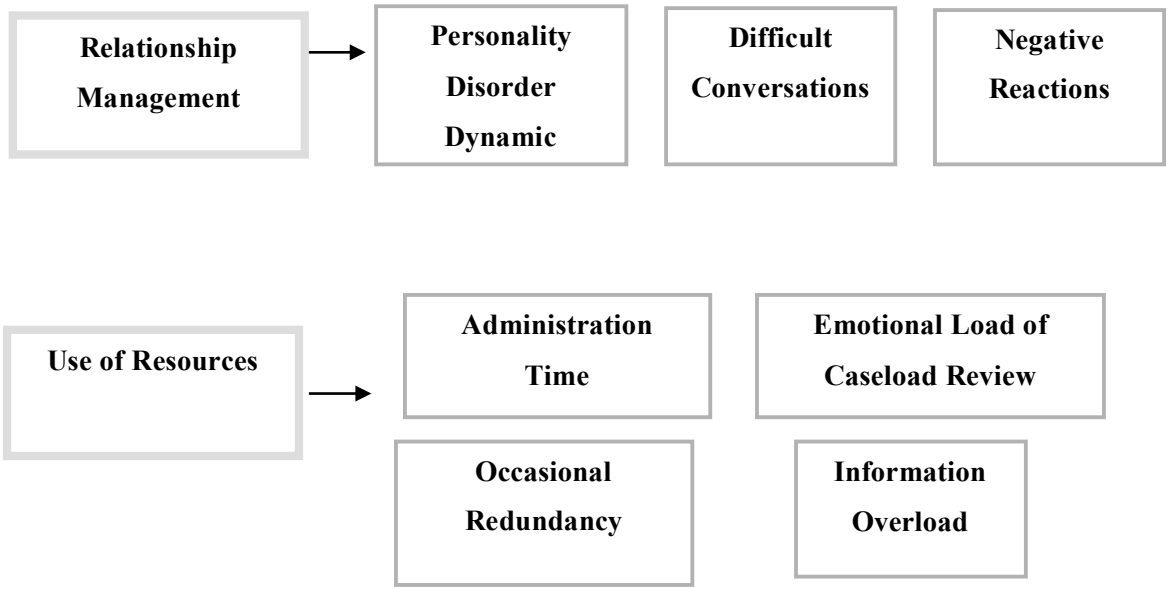

Figure 2. Diagram of Themes (Left) and Subthemes (Right) in relation to Question 2

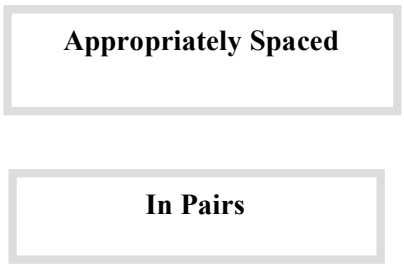

Figure 3. Diagram of Themes in relation to Question 3

The themes identified in relation to Question 2 (What is difficult about the screening interviews?) were; use of resources and relationship management (see Figure 2). The themes identified in relation to Question 3 (How could these be improved?) were appropriate spacing and conducting the interviews in pairs being suggested as improvements (see Figure 3). These themes are elaborated and discussed, with reference to quotes from the focus-group, below.

What Works Well about the Screening Interviews?

Theme: Reflection

Providing supervision space.

Clinicians reported that the addition of the screening interview adds value to the screening process as it provides time and space for Offender Managers (OMs) to reflect on their caseloads in a supervision setting that they may not otherwise have access to.

PP1: "I think it's the space to reflect as well, it's a proper time out. They've booked two hours out to sit with us so they're literally having that two hours to think about the cases rather than answering the phone or somebody is coming and they just have that time, and they don't get that in supervision"

PP2 "they're (OM) appreciative of that time and space, it's a little bit forced upon them, that time and space to actually think about the individual and think about what their needs are and their pathway"

Thinking differently.

This space for reflection allows for thinking in a different way about the offender, or about different ways to engage or work with offenders, which participants said can help to bring about change in cases that can otherwise appear stuck.

PP3: "with certain cases they have just got a bit lost and not being progressed through. People can start thinking about them [cases] again in a slightly different way to maybe 'Are they just messing up?'"

PP4: "and it just enables that space to sit down and think outside the box about how to deal with things, rather than going through the same motions."

Theme: Increasing Awareness

Personality disorder awareness.

A major theme reported by the clinicians was the upskilling of OMs in terms of their knowledge and understanding of working with the client group (individuals with symptoms indicative of a personality disorder).

PP5: "it was a positive experience, the OM (was newly qualified. It felt good to engage her in understanding what PD is, so it felt like you were giving over information."

PP1: "I think if you are adding that value as well that's what our project should be about and kind of raising awareness for the OM to understand more about personality disorder and how it might manifest itself or how it might show itself"

PP4: "...you're actually up skilling people and helping them to think about their caseloads, just for those who are less used to talking about PD""

Service and role awareness.

Clinicians also described that the screening interviews allowed the OMs to learn about the Pathfinder service and the roles of the clinicians and what they can offer. As this knowledge has been given over time the screening interview process has been described as becoming easier.

PP1: "when we were first going in to do screenings with probation officers and they didn't quite understand it so, and they haven't experienced actually what a consultation, what a formulation, what other sort of pathway planning stuff actually could add to the supervision of their cases."

PP4: "So it's actually a really good opportunity for them to start understanding what we can offer in terms of a service and I think that's always a bit of a relief to people; to go away thinking someone, in a way, is going to take something off my hands, or I don't have to think about this case on my own"

Theme: Fulfilment of Core Roles

Identifying appropriate clients.

The opinion emerged that the identification of individuals with personality disorder is improved using the screening interviews compared to screening just using the screening tool.

PP2 "[The OASys PD] kind of misses a lot, I mean relationships isn't- there's nothing on relationships which is kind of an obvious thing like what would be an issue for somebody with personality disorder."
PP3: "I'm just thinking in terms of a tool, if you just do them as tick box it doesn't really have, it doesn't tell you a wealth of information…… Personally in terms of tick box and the score I just do it because we have to, I wouldn't say that I have confidence that it always gets it right"

Identifying pathways.

Clinicians reported that the screening interview can provide a wealth of information from which can help to identify the individual's pathway earlier.
PP3:" we are trying to get as much done in that screening process as possible… so we can do a bit of consultation, we can identify a pathway for the person that's been screened in, we can start to identify where they are going"

Identifying needs.

The screening interviews were seen to provide an opportunity for OMs to recap their entire caseloads and for clinicians to gain a sense of the needs of both the service users (e.g. needs of an offender being screened in) and the OMs (e.g. where an OM might need support to understand and recognise signs that an offender is eligible for the service).
PP4 "I think that that's probably the key thing with screening; it identifies that caseload but it also helps us identify exactly what the needs are."
PP3 "It's also a bit of an opportunity for them (OMs) to have a recap on their cases. So actually it can be a bit of reassurance of actually knowing where everybody is at 'cause I've had that recap of it. I think that's a really functional aspect of it"

Time-effective.

Whilst the screening interviews take longer than just using the screening tool, the process is described to be time-effective as the identification of pathways/consultations can occur earlier. Clinicians also reported their experience that if the process is done well the piece of work can have enduring value.

PP2 "And the screening meeting will feed into pretty much all but one of our objectives for commissioning, so it's a major piece of work that if you've done it effectively, I hate using this term, but it ticks boxes. So yeah it can be very effective but also time consuming"

PP3 "Yeah I do think that if you do it to a certain level actually that piece of work on its own with that case can then last for potentially 12 months until the next review"

The participants in the focus-group described their overall experience of the screening interviews as positive and helpful, but made reference to the below difficulties.

What is Difficult About the Screening Process?

Theme: Relationship Management

Personality disorder dynamic.

Clinicians described that the working relationships between the pathfinder clinicians and the OMs to be difficult to manage at times. Clinicians described that transference of the dynamics between the offender and the OM could be mirrored in the relationship between the OM and the clinician.

PP4 "I think the thing that I would find most difficult, and most worrying in terms of if we were leaving some people to it, I suppose in that way is those who very clearly have a PD dynamic going on in the relationship that they have with the offender but that is not clear to them in any way shape or form because they've become so immersed in it and so blind to what is going on"

Difficult conversations.

Having difficult conversations, such as bringing a dynamic to the OM's awareness or highlighting an area where perhaps the OM lacks some knowledge, were described to be challenging by clinicians due to the need to be sensitive and non-shaming.

PP3: "...you have to be quite skilled about not shaming OMs about their knowledge about their cases."

PP4 "That can sometimes be a very difficult balance to strike and having to tread very carefully sometimes, particularly I think where there are people who really don't know an awful lot about PD, but unfortunately know so little about

it that they also don't realise that they know so little about it, and that's where the difficulties arises"

Negative reactions.

Staff-burnout and lack of capacity due to ever increasing demands was described as one of the reasons that OMs could sometimes have a negative reaction to the screening process. Reactions experienced include OMs being defensive about their caseloads, not being open to suggestions and devaluing the OPD clinician's role.

PP2 "Yeah I've had a couple of people like that who are quite defensive about their cases, it was hard. And I've had people that have devalued our role….so they have felt that they really don't want to give their time to screening because they are so busy doing important stuff."

PP1: "You get a sense of 'none of my cases are PD, leave them alone, they're all mine' kind of thing. Just kind of presents a bit defensive."

PP4 "I think its when people have got to the point that they've become very cynical or very burnt out or whatever."

Theme: Use of resources

Occasional redundancy/over-resourcing.

It was noted by participants that there is of course variation in the experience of the screening interviews, for example there are OMs who already have a lot of knowledge of personality disorder/the service or where the screening interview isn't deemed useful.

PP2: "the others it was kind of almost obvious when you're looking through, you just think this is really obvious and you almost think is it worth taking up like an hour and a half or two hours of their [OM] time to have them in a room when you could just be doing it yourself"

Administration time.

Clinicians reported that whilst the screening as a whole is time-effective in the long run, the process is resource heavy and that the associated administration time is time-consuming and not cost-effective.

PP3: "I suppose the thing is that for us as clinical staff… there is a lot of admin so I think It does feel like a laborious process because there is big admin aspect to it. And you tend to think 'I shouldn't be doing admin I should be doing something else"

PP4 I think the meeting itself is time effective, it's all the admin that goes around it that we've all been struggling with…."

Emotional load of caseload review.

The screening interviews were also described as resource heavy and draining from a personal point of view for both OMs and OPD clinicians. The volume and nature of information that is being given over in the 2-hour interviews was described to be draining.

PP3: "I do sometimes get concerned that as you go through you can chat about 20-25 cases all high-risk offenders, all committed quite- sort of yeah nasty offences, and personally sometimes going through doing the screening stuff you're like that's a lot of information to hold, I think probation officers sometimes they don't want to hold all that information for all their cases they are responsible for at the same time… sometimes yeah if you're brining it up and going through sometimes it can be quite a draining process again."

Information overload.

The repetitive/similar nature of many of the cases can mean that information is forgotten or confused if too many are done together.

PP2: "So we're screening in, giving them information that they probably don't even want to hold in their head, so it can be a bit of an obstructive process for them""

PP1 "You can even start to forget which case is which as you are doing them. You're talking about somebody a minute ago who was a [convicted of] domestic violence and you might still have the [man convicted of] domestic violence (man) in your head because you've done so many that day"

How Could These be Improved?

Theme: Appropriately Spaced

Spacing out the interviews was seen to allow for enough time to write up the notes and to reduce the draining impact/information overload effects.

PP2: "I think you've got to be organised in how many you allocate yourself because if you're not dong it right it becomes ineffective. So if you're doing lots of screening and you are not able to upload that data then you forget."
PP1: "you need to have a few breaks in between. That's probably why it works well in pairs because you switch over."

Theme: In Pairs

Conducting the screening interviews in pairs, as they have sometime been done in the past, was suggested by clinicians to help reduce the negative impact of the volume and type of information being discussed, help with having the difficult non-shaming conversations with OMs and allow for two people's heads to be thinking about the same person.

PP3: "I think when you're done you feel exhausted afterwards, whereas it's not that level of exhaustion in a pair, cause you do tag team naturally."
PP4 "I actually really valued doing them in a pair, because partly of what PP1 was saying about kind of the objectivity and stuff about it but sometimes you do get cases that you are discussing when it isn't really very clear sometimes its just to have that additional person to check in… and again I think that's where its really helpful to have two people doing it rather than one because there may be times when you really need to pause to think about how you say things and how you approach things. "

Stage 3: Feedback and Recommendations

The results (Table 3) of the evaluation were fed back to the service in a presentation at a team away day. The results were discussed and the team drew up an action plan for recommendations The results suggest that the additional screening interview will at most pick up a potential extra 3%. It is not certain that the screening interview actually picks these cases up; the service did not record how false negatives were eventually identified, so although it is likely to be through screening interviews, this is not definitive. The team reflected that the results and discussion were extremely helpful and that they had been shocked to hear that their hypothesis that the screen was missing 10-15% of eligible individuals was not confirmed. A potential reason for this discrepancy was highlighted to be due to the complexity of the cases that the screen

Table 3

Summary of Results fed back to the service

Key Results
• For the population analysed, the tool alone accurately identified individuals who were eligible for the service 79% of the time • 3% of individuals were 'missed' by the screen (false negatives). • 18% of the individuals were screened in when the tool was over-inclusive (false positives) • The screening interviews do have value in addition to identifying possible false negatives; they allow for reflective space, increase awareness and help to fulfil core roles (e.g. commissioned duties including providing a psychologically informed service for challenging, high risk group)

might miss (e.g. individuals with traits indicative of EID). These cases were described to feel 'bigger' in some way, e.g. take up a 'big space' in the mind due to added emotional weight of the case, so clinicians felt they may have over predicted the number of cases to reflect this. Table 4 shows the recommendations discussed and the action points the service agreed to take forward.

Discussion

Summary

Contrary to team expectations the resource-intensive screening interviews were not identifying as many extra cases as predicted, although the false negatives were believed to be significantly emotionally intensive. The screening interviews were seen to be valuable in a number of other ways and the team has taken forward recommendations based on these results to refine the process whilst managing some of the challenging elements.

Implications

The analysis of the tool's ability to correctly identify individuals who clinicians feel meet the criteria for the OPD service offers an initial piece of evidence towards the validity of the use of this tool. The National Offender Management Service note that of the number of screening tools available only one (the Standard Assessment of Personality- Abbreviated Scale [SAPAS]) has been tested for validity and that screening tools must be used with extreme caution (Craissati et al., 2011). When tested

Table 4

Summary of recommendation and agreed actions from the service

Recommendation	Rationale	Action Points
A further piece of work be undertaken to track where the false negatives are picked up (e.g. whether they are being screened in or highlighted in the screening interviews or not) and the profile of these individuals. The database should be completed in a uniform way across all areas for any future analysis.	This would provide evidence for whether discussing the false negatives in the screening interview has any value, whether the false negatives are high-risk and could help build an understanding of the OASys blind spots. Previously data had to be excluded due to missing information.	Passed on to the service lead
Continue running the screening interviews but streamline them by initially only discussing individuals with a 'positive' screened in result from the tool.	The screening tool is over-inclusive and correctly identifies true negatives more often than true positives. Therefore the positive results should be discussed during screening to identify which are true and which are false. This recommendation allows the benefits of the screening interview to continue but will require less resources	Agreed to take this recommendation forward and initially discuss those individuals with a positive screen
In line with the above recommendation, offer the OM the chance to bring any other individuals to the screening interview that they are concerned about, in addition to the 'positive' screened results	This will allow for any possible 'false negative' individuals to be discussed and maintains discussions of individuals who may not be eligible for the service, but the OM requires help with (which improves good working relationships)	Agreed to take this recommendation forward and will /offer the chance for the OM to contact the clinician about other cases that are concerning as needed.
A guideline of one hour to one and a half hours of screening per session be recommended to clinicians	This will reduce the chances of information overload so that the clinicians can be time-effective	Agreed to set this guideline but recognise that staff may choose to do more or less when it suits their diary
Run the screening interviews in pairs where possible	To reduce the emotional load, information overload and help with difficult conversations during the screening interviews	Agreed to run the screening interviews in pairs where possible

in a probation sample, using the recommended cut-off score of 3, the SAPAS has a positive predictive value of 96% (Pluck, Sirdifield, Brooker, & Moran, 2012) which is slightly higher than the OASys PD result described here. However, the results described here suggest that the OPD team use a screen (OASys PD) with caution (the addition of the screening interviews) which creates a useful and effective process for tackling the very difficult task of delivering the service to the target population. Most importantly the OASys PD rarely identifies false negatives and therefore the risk of a potentially dangerous individual not receiving the service that they need is very low.

The team felt that a PPV of 79% and a NPV of 97% were acceptable/usable for two reasons. The team had expected the tool to be performing poorly and to be missing 10-15% of cases (expected NPV 85-90%) so the results were an improvement on this. Secondly, the tool is over-inclusive, so the errors that it makes do not increase risk and a key role of the service is risk management.

The team feedback session highlighted the difficulty that the OASys screen has for picking up difficulties indicative of the entire range of personality disorders, e.g. Dependent Personality Disorder, due to the development of the screen stemming from the identification of antisocial personality disorder. Whilst an important limitation to consider, the OASys is not alone in its difficulty to identify all types of personality disorder equally well. The SAPAS is noted to correlate less well with antisocial, narcissistic, and histrionic personality disorder traits (Hesse & Moran, 2010). This may reflect the heterogeneity of the traits which fall within the differing personality disorder constructs. It may therefore be best practice to use a tool which correlates highly with the type of traits that are prevalent in the population, as the OPD team does, and hold in mind these limitations.

Limitations

The results described above only represent how likely that a positive result represented a true positive, and vice versa, for the population analysed; if the OASys screen was used on a different population, the PPV and NPV would change. The PPV and NPV are directly influenced by the prevalence of the disorder in the population (Parikh, Mathai, Parikh, Sekhar, & Thomas, 2008) and it is noted that the OASys is a probation tool.

It is also necessary to comment on the noticeable limitations that this medical model analysis presents by classifying personality disorder as a 'clinically present disorder' that is present or not. There are the aforementioned difficulties with the diagnostic construct however there needs to be a way to filter out those less likely to have difficulties indicative of a personality disorder from the large number of high risk of harm individuals.

The missing information that resulted in certain areas and data points being excluded from analysis appeared to be related to different individuals/localities recording different amounts of information in different ways on the database. The data gaps highlight the need for the entire service to populate the database in a uniform way should future research be pursued.

The focus-group was completed with five individuals however only four contributed significantly to the interview. The fifth individual had less experience of screening, was new to the team and had less established working relationships with the others which may explain their reduced participation. Whilst the results of the focus-group naturally only reflect the views of those involved, other team members were present at the feedback session and no concerns or challenges were raised.

Conflicts of Interest

None.

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Mental Defeat in Long-term Health Conditions

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Abstract

Objectives: This study aimed to explore whether mental defeat (MD) occurs in long term health conditions (LTCs) and if it does, whether it differs across conditions with differing symptomology.

Design: This study used a cross sectional questionnaire design with two groups; Inflammatory Arthritis (IA) and Chronic Kidney Disease (CKD).

Methods: Participants in both groups completed a battery of questionnaires about their experience of, and their beliefs and feelings about their health condition. A mixed model ANOVA and stepwise regressions were conducted to explore associations.

Results: A mixed model ANOVA revealed no significant differences in levels of MD between the two groups. However, both groups reported higher levels of MD than healthy controls. A stepwise regression revealed that MD, health anxiety, disability and catastrophizing were all associated with psychological distress. A second regression revealed that MD, age, and health anxiety predict fear of disease progression.

Conclusion: Mental defeat occurred in both LTCs in this study and there was no difference between the two conditions. Mental defeat was associated with psychological distress and fear of disease progression.

Keywords: Mental Defeat, CKD, Inflammatory Arthritis, Kidney Disease, Psychological Distress

Mental Defeat in Long Term Health Conditions

Long term health conditions (LTCs), defined as conditions that cannot be presently cured but are controlled by medication or other treatment, are common and debilitating. LTCs are reported to effect around 14% of individuals under 40 and 58% of those 60 and over (Department of Health, 2012; Office for National Statistics, 2009). Individuals with LTCs often have comorbid mental health difficulties such as anxiety and depression (30%) and can experience poorer health outcomes and quality of life as a result (Naylor et al., 2012). Research has begun to consider the psychological process which may be involved in psychological complications of LTCs.

Health Psychology research has recently explored the role of Mental Defeat (MD) as a process contributing towards psychological distress in certain LTCs. Mental defeat (MD) is a cognitive phenomenon first described in relation to Post Traumatic Stress Disorder (PTSD) and depression and it has been linked to the development and maintenance of PTSD symptoms, as well as being associated with greater symptom severity and poorer treatment response (Dunmore, Clark, & Ehlers, 2001; Ehlers et al., 1998; Gilbert & Allan, 1998). Ehlers et al., (1998) suggested that MD results in an individual giving up their effort to maintain their self-will and identity through a perceived lack of autonomy in the face of traumatic and uncontrollable events.

MD can be distinguished from both helplessness and hopelessness. Helplessness refers to the lack of relationship between an individual's behaviour and the reward/stimuli. An individual who experiences torture where there is no link between their behaviour and the consequence may feel helpless but can still retain a sense of their identity and a sense that their will is separate to that of their attacker (Ehlers et al., 1998; Tang, Salkovskis, & Hanna, 2007). Hopelessness, defined as an expectation that the desired outcomes will not occur, is related to future events as opposed to ones sense of self (Tang et al., 2007). Not all individuals who experience multiple traumatic events against their will develop MD. MD is a cognitive process which can contribute to low mood and depression however it differs to depression in its focus. MD has a narrower focus on the self/identity than depression which incorporates more global judgements. More recently MD has been shown to be associated with low self-efficacy (whilst being described as 'the opposite of self-efficacy') and to differ from related constructs e.g. hopelessness and depression (Hazeldine-Baker, Salkovskis,

Osborn, & Gauntlett-Gilbert, 2018). Whilst parts of the construct overlap with many other existing psychological concepts, MD is unique in its own right.

Chronic Pain

The concept of MD has more recently been explored in relation to chronic pain. Experiencing chronic pain has been likened to some trauma experiences as it can be repeated, unpleasant and perceived as outside an individual's control. Tang et al. (2007) define MD in relation to chronic pain as "a disabling type of self-processing where repeated episodes of persistent and debilitating pain trigger negative beliefs about the self in relation to the pain" (page 222) and have found elevated levels of MD in chronic pain patients compared to control groups. MD has also been indicated an important mediator of distress and disability (Tang, Goodchild, Hester, & Salkovskis, 2010) and as a predictor for heightened suicide risk in individuals with chronic pain (Tang, Beckwith, & Ashworth, 2016). A negative appraisal of the pain can lead to both negative beliefs about the self, increased psychological distress and reduced activity/increased disability (Beck, Rush, Shaw, & Emery, 1979; Lewishohn, 1974).

Research suggests a link between MD and treatment seeking; individuals who were seeking treatment for their pain had significantly higher levels of MD compared to non-patient volunteers matched on pain (Tang et al., 2007; Ziegler & Paolo, 1995). This suggests that emotional distress effects treatment seeking behaviours more so than the level of pain experienced by the individual. This has important implications not only for the self-management of patients with chronic pain but also the associated costs to the health service e.g. from repeated medical visits.

MD has been likened to a type of catastrophising focused on the self, the person's life and their identity. Whereas general catastrophising (in relation to pain) is focused on what the pain means for the person in terms of their health (Tang et al., 2007).

The cognitive theory underpinning research into MD and chronic pain can be applied to other health conditions where an appraisal-based model can help to understand the psychological experience for the individual. If mental defeat does occur in other LTCs it may be a cognitive process that affects treatment seeking, suicidality, symptom severity, and levels of distress, making it a useful area for research to both improve the support available for patients and minimise unnecessary medical visits. In

the present paper MD is explored in two LTCS that differ in presentation and pain symptomology in order to explore the factors associated with MD and psychological distress.

Inflammatory Arthritis

Inflammatory arthritis (IA) is the collective term for the two conditions; Rheumatoid arthritis (RA) and Psoriatic Arthritis (PA). RA is chronic autoimmune condition involving pain and inflammation of the joints which affects around 1.16% of women and 0.44% of men in the UK (Nyklíček, Hoogwegt, & Westgeest, 2015; Symmons et al., 2002). PA is a similar condition which is associated with skin lesions and affects approximately 0.1-0.3% of the UK population (NICE, 2009). The trajectory of IA is variable however in aggressive forms the conditions can be disabling, with erratic symptom flare ups and chronic stiffness and swelling of joints (NICE, 2009; van Riel, van Gestal, & van de Putte, 1996). As a result, psychological distress (at a higher rate than the general population) associated with the incurable and unpredictable nature of the disease is common (Nyklíček et al., 2015). Prevalence rates of either depression, anxiety or comorbid depression and anxiety have been estimated to be just over 40% of assessed patients with RA (Covic et al., 2012). Research exploring the impact of chronic health conditions on major depressive disorder in adults named RA as the greatest relative contributor for adults over the age of 60 (Ryu et al., 2016).

It is hypothesised that MD (self-catastrophising) may occur in individuals with IA due to repeated exposure to pain and possible isolation due to reduced mobility and irregular, infrequent hospital appointments. Research also suggests that individuals with IA are faced with the task of reconciling threatened personal goals (Arends, Bode, Taal, & van de Laar, 2016) which suggests that personal identity and sense of self are affected which both have a role in MD.

Health psychology recognises that catastrophising beliefs, where patients may over-estimate the degree of emotional distress that they are in and overly focus on the negative aspects and potential outcomes of an illness, are common in chronic pain conditions (Straub, 2014) including IA (Keefe, Brown, Wallston, & Caldwell, 1989). Due to the unpredictable but potentially debilitating prognosis of IA, it is expected that catastrophizing will occur.

Chronic Kidney Disease

Chronic kidney disease (CKD) is a long term condition affecting around 4.7% of adult males and 7.4% of females in the UK (Public Health England, 2015). CKD is more common in older age and has five stages starting with very minimal symptoms in early stages, progressing to fatigue, nausea and shortness of breath in later stages and the need for dialysis/transplant in final stage renal failure (Chronic Kidney Disease Treatment, 2016). In comparison to IA, pain is not a prominent symptom of CKD and individuals in early stages can be asymptomatic (Arora, 2017). Whilst the trajectory and timeline for both LTCs is unpredictable and uncertain, in CKD there are clear stages and associated monitoring/treatment pathways. It is hypothesised that these factors may mean that MD occurs less in CKD than in IA. The experience of the illness may be less likely to be appraised in relation to a lack of psychological autonomy or a negative reflection on themselves if there is an increased perception of control via attending for monitoring/treatment. Attending for treatment may also make it more likely that an individual will interact with others with the same experience and this may make the appraisal less about themselves as an individual and more external.

As with IA, CKD is unpredictable in its prognosis, with some patients progressing quickly through to end stage renal failure and other patient's remaining in an earlier stage (Baek et al., 2012). It is anticipated that there will be general catastrophising beliefs about the illness and its potential progression/negative outcomes for an individual.

Alongside MD and psychological distress (depression and anxiety) there are other psychological constructs which have been studied in health psychology and are known to influence an individual's experience of living with a LTC. Anxiety-related constructs include Fear of disease progression and Health anxiety. Fear of disease progression has been suggested to be central to a patient with a LTC's heightened anxiety (Herschbach et al., 2005) and has been shown to play an important role in individuals with rheumatic conditions (Wiener, 1975). Health anxiety is different to fear of progression in that it is characterised by a preoccupation/hypervigilance with having a serious health concern despite medical reassurance, as opposed to concern over an existing or diagnosed condition.

Aims and Hypotheses

This research aims to explore whether MD occurs in LTCs and whether it differs between conditions, in order to inform psychological treatments targeting psychological distress in LTCs.

Primary Hypothesis

There will be higher levels of MD in arthritic patients than renal patients (due to the difference in symptoms and treatment) but there will be no difference in levels of general catastrophizing (due to the chronic yet uncertain nature of both diseases).

Secondary Hypotheses

2a) Psychological distress will be associated with mental defeat.

2b) Fear of disease progression will be associated with health anxiety.

MD has been found to predict depression in individuals with Multiple Sclerosis (MS) and in cancer patients (Brown, Gregory, & Dysch, 2017). Health anxiety is associated with fear of disease recurrence in cancer survivors (Grozdziej et al., 2015).

Methods

Participants

1) IA Group. Participants with IA were recruited from NHS outpatient clinics in Bristol and online via advertising on social media (Facebook and Twitter). Participants were included if they were aged 18 and over, were English speaking and had either Rheumatoid Arthritis or Psoriatic arthritis (diagnosed in outpatient settings, self-reported online).
2) CKD Group. Participants with CKD were recruited from NHS outpatient clinics in Bristol and online via advertising on social media. Participants were included if they were aged 18 and over, English speaking and had Chronic Kidney Disease. Patients were excluded if they had a Glomuler Filtration Rate (GFR) score of 30 or more, were receiving dialysis or had received a transplant. The GFR score cut off was used to screen out individuals attending the clinics with acute kidney damage. The patients in the final stage of CKD (on dialysis/transplanted) were excluded due to the expected heterogeneity in illness experience across the stages (e.g. experiencing fatigue, hypertension and attending clinics for dialysis multiple times a week vs. an annual monitoring appointment and no symptoms). It was

deemed above the scope of this project to recruit sub-groups of individuals with CKD.

Design

This study used a cross sectional questionnaire study with two groups; IA and CKD. The IA group was chosen because of the presence of pain in in the symptomology. A control group of a similar age, with a chronic condition not characterised by pain was required for comparison, therefore CKD was chosen. An a priori power analysis completed using G*Power calculated a total required sample size for the mixed ANOVA of 82 using $\alpha = 0.05$, power = 0.8 and a medium effect size ($f = 0.25$).

Primary Analysis

To support or disconfirm the primary hypothesis a 2x2 mixed model ANOVA was completed looking for an interaction between MD and catastrophising and group (IA or CKD).

Secondary Analysis

Two stepwise regressions investigated predictors of psychological distress and fear of disease progression.

1. Psychological distress (DV) with IVs; MD, age, level of disability, pain, HA, general catastrophizing
2. Fear of progression (DV) with IVs; MD, age, level of disability, pain, HA, general catastrophizing

Procedure

Once screened for eligibility, and informed consent obtained, participants completed a battery of questionnaires either online or on paper in clinics (with the option of returning them via prepaid envelopes). Participants then received debrief sheets and a small donation was given to charity on their behalf to thank them for their time.

Measures

The questionnaires were piloted with people with personal experience (PPE) of both LTCs before data collection started.

Background Information.

After completing screening questions (see Appendix H) participants were asked to provide information regarding demographics, comorbid physical and mental health conditions, and how well managed/burdensome they found their condition (see Appendix I).

Target Measures

Mental Defeat.

The Pain Self-Perception Scale (PSPS) was devised to measure mental defeat linked to chronic pain (Tang et al., 2007). It was developed from the PTSD and Depression literature (Dunmore, Clark, & Ehlers, 1999; Gilbert & Allan, 1998). Participants read 24 statements and then rate the extent to which they apply to their experience on a 5-point scale (0 = never to 4 = very strongly). A total sum score from 0 to 96 is created. There is no cut off score to suggest the presence of mental defeat or not, rather a higher score signifies higher levels of mental defeat. The PSPS Scale was easily adapted for IA/CKD by editing the line 'because of the pain' to 'because of my IA/CKD' which comes before each statement.

Catastrophising.

The Beliefs About Physical Illness Questionnaire is a novel measure that targets cognitive beliefs about physical symptoms using adapted items from other validated CBT measures. It consists of statements which participant rate on a 10-point from 1 = Strongly Disagree to 10 = Strongly Agree. Eight of the 22 items (questions 5-8 and 11-14, Cronbach's α= 0.87) which target catastrophizing beliefs were used to create a catastrophising score with higher scores indicating higher catastrophising.

Descriptive Measures for Secondary Analysis

Fear of Disease Progression.

The Fear of Progression Questionnaire Short Form (FoP-Q-SF) comprises 12 items rated on a 5-point scale from 'Never' to 'Very Often'. The FoP-Q-SF is valid

and reliable for use clinically and in research (cronbach's alpha =0.87; Mehnert, Herschbach, Berg, Henrich, & Koch, 2006).

Health Anxiety.

The Health Anxiety Inventory Short Form (HAI-SF) consists of 14 questions where the individual picks 1 of 4 statements, rated on a 0 – 3 scale. Higher total scores indicate higher levels of health anxiety. The HAI is a reliable and valid measure of health anxiety and a useful screening tool (Salkovskis, Rimes, Warwick, & Clark, 2002). A cut off of 15 is suggested to indicate the presence of health anxiety and a cut-off of 18 identifies those fulfilling the DSM-IV diagnosis for hypochondriasis.

Disability.

The Work and Social Adjustment Scale (WSAS) is a simple measure consisting of 5 statements rated on an 8-point scale from 0 = not at all, to 8 = very severely. Total scores range from 0 to 40 and greater scores indicate greater impairment. The WSAS has been shown to be a reliable and valid measure of impaired functioning (Mundt, Marks, Shear, & Greist, 2002).

Pain.

The Short Form McGill Pain Questionnaire (SF-MPQ) comprises 15 descriptions (11 sensory and 4 affective) ranked on a 4-point scale from 'none' to 'severe' and gives consistently high correlations to the standard form (Melzack, 1987). A sensory pain score is calculated by summing the sensory items and an affective score from the affective items. Internal consistency in RA patients has been estimated to be high (cronbach's alpha = 0.73-0.89; Burckhardt & Bjelle, 1994). Content validity of the SF-MPQ has also been found to be good for RA patients (Burckhardt & Bjelle, 1994).

Psychological Distress.

The Patient Health Questionnaire-9 (PHQ-9) is a self-report measure of depression comprising 9 items and giving a total score of 0-27. It has been demonstrated to be a valid and reliable measure in both clinical practice and research, a cut-off score of 9 is commonly used to indicate the presence of depression. Scores of 5, 10, 15, and 20 represent mild, moderate, moderately severe and severe depression respectively. (Kroenke, Spitzer, & Williams, 2001). The Generalised Anxiety Disorder-7 (GAD-7) is a self-report measure of anxiety comprising 7 items and giving a total score of 0-21, with higher scores indicating higher anxiety. The GAD-7 has been

demonstrated to have good internal consistency, reliability and factorial validity (Löwe et al., 2008). For the GAD-7 scores of 5, 10 and 15 are taken as cut-offs for mild, moderate severe anxiety respectively.

Ethical Considerations

Ethical approval was obtained from the National Research Ethics Service (NRES), the Health Research Authority (HRA) and Bath University's Psychology Research Ethics Committee.

Analysis

Statistical analysis was conducted in IBM SPSS. Demographic and descriptive data were analysed to compare groups using t-tests and Chi Square tests.

Results

Data from a total of 82 participants were used in the analysis (IA group n = 54, CKD group n = 28). Data from two individuals were completely discarded due to the quantity of missing items and data from one individual was discarded due to incorrect completion of the questionnaire. Missing data for either one or two items per measure were imputed using the mode response from that individual on that particular measure. When n > 2 for missing items in a measure this response was discarded. For the primary analysis IA group n = 53 due to one individual completing all questionnaires except for MD.

Group Characteristics

Table 1 shows demographic information for the two groups. A t-test revealed that participants were significantly older in the IA group, $t(79) = -2.84$, $p < 0.01$. Chi-square tests revealed a significant association between gender and group ($X^2(1) = 5.85$, $p < 0.025$) with proportionately fewer men in the CKD group, and employment status and group ($X^2(1) = 5.29$, $p < 0.05$), with proportionately more individuals in the IA

group unemployed. This may link with the IA group being older and therefore more individuals in retirement age.

Table 1

Demographic characteristics of the participants

Demographic Characteristic	IA Group n = 54	CKD Group n = 28
Age (years)		
Mean (sd)	61.68 (13.63)	53.18 (11.13)
Range		
Gender		
Female	34 (64.2%)	25 (89.3%)
Male	19 (35.8%)	3 (10.7%)
Ethnicity		
White British	46 (86.8%)	17 (60.7%)
White Welsh	2 (3.7%)	1 (3.6%)
White Irish	0	1 (3.6%)
White Scottish	2 (3.8%)	3 (10.7%)
White Other	1 (1.9%)	5 (17.8%)
Mixed White and Asian	1 (1.9%)	0
Other	1 (1.9%)	1 (3.6%)
Employment Status*		
Employed	15 (27.8%)	15 (53.8%)
Unemployed	39 (72.2%)	13 (46.2%)
Education Level		
Primary School	4 (7.5%)	0
City and Guilds	9 (17%)	2 (7.1%)
G.C.S.E.s	12 (22.6%)	5 (17.9%)
A levels	6 (11.3%)	9 (32.1%)
University Degree	10 (18.9%)	9 (32.1%)
Master's Degree	5 (9.4%)	3 (10.7%)
PhD	1 (1.9%)	0
Other	6 (11.3%)	0
Marital Status	33 (61.1%)	21 (75%)
Married/Civil Partnership	8 (14.8%)	3 (10.7%)
Single	7 (13%)	3 (10.7%)
Divorced/separated	6 (11.1%)	1 (3.6%)
Widowed		
Other physical health conditions		
Heart Condition		
Respiratory Condition	6	3
Diabetes	9	4

Inflammatory/Autoimmune	3	4
Kidney Disease	N/A	4
Other	1	N/A
	11	10
Current or historic mental health condition		
Anxiety	9	4
Depression	11	11
Psychosis	0	0
Bipolar Disorder	1	1
OCD	0	0
Other	1	1

*employed includes self-employed, full and part-time, unemployed includes student, seeking work, in receipt of benefits, retired and volunteer status

Table 2

Diagnoses and symptoms of CKD group

	Number of participants n = 28
Diagnosis	
Diabetic Nephropathy	3 (10.7%)
Hypertensive Nephropathy	2 (7.1%)
Renovascular Disease	0
Glomerulonephritis	8 (28.6%)
Polycistic Kidney Disease	3 (10.7%)
Undiagnosed Cause	2 (7.1%)
Other	10 (35.7%)
Symptoms Experienced	
Tiredness/Sleepiness	26 (93%)
Lacking Energy	24 (86%)
Itchiness	10 (36%)
Cramps	13 (46%)
Nausea	13 (46%)

Independent samples t-tests found a significant difference between groups in terms of self-rated severity of symptoms, $t(80) = -2.12$, $p < 0.05$, with the IA group scoring higher ($M = 3.17$, $SD = 0.82$) than CKD ($M = 2.75$, $SD = 0.89$). There was no significant difference in how burdensome the two groups found their treatment regime, $t(80) = 0.04$, $p = 0.965$. See Tables 2 and 3 for information on each of the group's diagnoses and symptoms. Eighty percent or more of the IA group experienced each of the listed common symptoms, whereas the number of individuals experiencing the common CKD symptoms ranged from 36%-93%. Taken with the difference in self-

rated severity, this suggests that the CKD group experienced less symptomology than that IA group.

Table 3

Diagnoses and Symptoms of IA group

	Number of participants n = 54
Diagnosis	
Psoriatic Arthritis	15 (27.8%)
Rheumatoid Arthritis	38 (70.4%)
Both	1 (1.8%)
Symptoms Experienced	
Joint Pain	48 (89%)
Joint Swelling	45 (83%)
Joint Stiffness	47 (87%)
Fatigue	43 (80%)

Table 4 summarises the means, standard deviations and comparisons between the two groups for all target measures. A mean sensory pain and affective pain score was created for each participant so that the two pain scales, which had different maximum summed totals, were comparable. Individuals in the IA group reported higher levels of sensory pain than those in the CKD group and this difference was statistically significant $t(73)= -3.58$, $p < 0.001$. There was no statistically significant difference between the two groups for affective pain $t(73) = -1.66$, $p = 0.101$.

Table 4

Summary of target measures and comparisons

Variable	IA *M* (*SD*)	CKD *M* (*SD*)	*t*
Mental defeat	19.57 (25.36)	26.79 (26.54)	1.20
Catastrophising	36.38 (18.91)	42.71 (16.02)	1.63
Anxiety	4.51 (5.18)	7.32 (6.23)	2.04*
Depression	6.35 (6.56)	9.07 (6.23)	1.79
Health Anxiety	13.25 (7.32)	20.29 (8.63)	3.82**
Disability	15.27 (11.15)	19.54 (11.24)	1.62

Fear of Disease Progression	31.25 (11.74)	41.64 (10.85)	3.89**
Sensory Pain (mean score)	1.23 (0.75)	0.63 (0.62)	-3.58**
Affective Pain (mean score)	0.97 (0.84)	0.61 (0.88)	-1.66

*indicates significance level p< 0.05, **indicates significance level p< 0.01

Individuals in the CKD group had significantly higher levels of anxiety $t(47.09) = 2.04$, $p<0.05$ (equal variance not assumed; Levene's $F(79) = 4.217$, $p < 0.05$), health anxiety $t(77) = 3.82$, $p < 0.01$ and fear of disease progression $t(79) = 3.89$, $p < 0.01$, than the IA group. The CKD group also had higher levels of depression, and disability however these were not statistically significant (depression $t_(77) = 1.79$, $p = 0.078$ and disability $t(77) = 1.62$, $p = 0.12$).

T-tests with gender as the grouping variable for the IA group revealed a significant difference for Fear of Disease Progression only, $t(50)= -2.69$, $p < 0.05$ with females scoring significantly higher ($M= 34.26$, $SD = 11.82$) higher than males ($M= 25.5$, $SD= 9.87$). All other variables were not significantly different between the genders in this group (see Table 5).

Primary Analysis

A 2x2 mixed model ANOVA with group (IA or CKD) as the grouping factor and scale type (MD or catastrophising) as the within-subjects factors found a main effect of scale, $F(1,79) = 54.8$, $p < 0.001$. The main effect of group was not significant $F(1,79) = 2.1$, $p > 0.05$), nor was the interaction significant $F(1,79) = 54.8$, $p < 0.05$.

Table 5

IA group gender differences on key variables

Variable	Male *M* (*SD*)	Female *M* (*SD*)	*t*
Mental defeat	16.89 (26.01)	21.32 (25.57)	-0.59
Catastrophising	33.95 (21.40)	37.53 (17.87)	-0.65
Anxiety	3.67 (5.40)	5.09 (5.10)	-0.94
Depression	6.18 (6.98)	6.44 (6.44)	-0.14
Health Anxiety	10.79 (6.89)	14.67 (7.29)	-1.89
Disability	12.63 (11.35)	16.84 (10.91)	-1.31
Fear of Disease Progression	25.50 (9.87)	34.26 (11.82)	-2.67*
Sensory Pain (mean score)	1.16 (0.96)	1.31 (0.64)	-0.61
Affective Pain (mean score)	0.90 (0.96)	1.02 (0.80)	-0.46

*indicates significance level p< 0.05

Mental Defeat

The CKD group reported higher levels of MD (M= 26.79, SD= 26.54), than the IA group (M= 19.57, SD= 25.36 however this difference was not statistically significant, $t(79) = 1.20$, p= 0.234. Both of the IA and CKD groups had significantly higher levels of MD compared with a sample of community, healthy controls (M = 7.2, SD = 9.3), $t(114)= 3.99$, p< 0.01 and $t(99)= 4.91$, p< 0.01, respectively. (Carrick, Salkovskis, & Griffith, 2016).

A correlational analysis revealed a Pearson's r correlation coefficient for MD and depression of 0.74 ($p < 0.01$) and for MD and anxiety of 0.68 ($p < 0.01$), confirming that the both anxiety and depression are correlated to the MD construct.

Catastrophising

The CKD group reported higher levels of catastrophising (M= 42.71, SD= 16.02, than the IA group (M= 36.38, SD= 18.91) however this difference was not statistically significant, $t(80) = 1.63$, p= 0.12.

Secondary Analysis

A psychological distress score was created for each participant by summing their total PHQ-9 and GAD-7 scores. A stepwise multiple regression was conducted with psychological distress as the dependent variable and MD, catastrophising, age, sensory pain, affective pain, health anxiety and disability as independent variables. Several assumptions required for analysis were tested prior to conducting the regressions. All of the IVs in the regressions had a Pearson's r correlation coefficient of below 0.7 except from the two types pain scores (r = 0.82). All of the IVs were correlated to the DV ($r > 0.3$) except for age (r = 0.21) and there were no outliers on the predictor variables or outcome variable (Cook's Distance maximum value < 1 for all). Results showed that MD, health anxiety, disability and catastrophizing were all associated with psychological distress and all contributed significantly to the model, $F(1, 67)= 4.44$, p< 0.05, R^2 = 0.72 (see Table 6). Taken together, these four predictors accounted for 72% of the variance in psychological distress scores. MD was significantly associated with psychological distress, $p < 0.05$, therefore the hypothesis

2a) MD is associated with psychological distress can be accepted and the null hypothesis rejected. Entering MD into the model accounted for 55% of the variation in Table 6

Stepwise Multiple Regression analysis with psychological distress in adults with LTCs as the dependent variable

Variable	R^2	R^2 change	β	β Standardised	*t*	*p*
MD	0.55	0.55	0.12	0.26	2.49	0.015
Health Anxiety	0.65	0.10	0.41	0.29	3.55	0.001
Disability	0.70	0.05	0.26	0.25	2.56	0.013
Catastrophising	0.72	0.02	0.07	0.03	2.11	0.039

Note: Excluded variables; Sensory Pain, Affective Pain and Age

psychological distress scores. Adding health anxiety to the model accounted for a further 10% of variation in scores, with disability adding 5% and catastrophising another 2%. The other variables, sensory pain, affective pain and age were removed from the model as they did not contribute significantly.

A second stepwise multiple regression was conducted with fear of disease progression as the dependent variable and MD, catastrophising, age, sensory pain, affective pain, health anxiety and disability as independent variables. Results showed that health anxiety, age and MD all contributed significantly to the model, $F(1,68) = 11.49$, $p < 0.1$, $R^2 = 0.68$ (see Table 7). Taken together, these three predictors accounted for 68% of the variance in fear of disease progression scores. Health anxiety was significantly associated with fear of disease progression, $p < 0.01$, therefore the hypothesis 2b) health anxiety is associated with fear of disease progression can be accepted and the null hypothesis rejected. Health anxiety accounted for 55% of the variation in Fear of Disease Progression scores. Adding age to the model accounted for an additional 8% of variation and adding MD accounted for a further 6%. The other variables, catastrophising, sensory pain, affective pain and age were removed from the model as they did not contribute significantly.

Table 7

Stepwise Multiple Regression analysis with fear of disease progression in adults with LTCs as the dependent variable

Variable	R^2	R^2 change	β	β Standardised	*t*	p
Health Anxiety	0.55	0.55	0.77	0.52	6.09	<0.001
Age	0.63	0.08	-0.23	-0.25	-3.44	0.001
MD	0.68	0.06	0.14	0.29	3.39	0.001

Note: Excluded variables; catastrophising, sensory pain, affective pain and age

Discussion

This research aimed to explore whether MD occurs in specific LTCs (IA and CKD) and if so whether it differs between the two conditions. Findings indicate that MD does occur in individuals with both IA and CKD at levels higher than that of a healthy sample, but that there is no significant difference between the two conditions. The primary hypothesis, there will be higher levels of MD in arthritic patients than renal but no difference across the groups in catastrophising, can be rejected and the null hypothesis accepted.

Catastrophising occurred equally in both groups. Having a LTC with an unpredictable and uncertain prognosis may contribute to negative beliefs about the future of the illness itself and its effect on an individual, as well as negative beliefs about the self and identity.

Previous research has found a link between chronic pain and MD therefore it was hypothesised that there would be more MD in the IA group, due to the presence of more painful symptomology. The results presented here do not support this and suggest that the experience of sensory pain is not necessary for MD to be present. Additionally, pain was removed from both regression models, suggesting that it was not associated with psychological distress or fear of disease progression in either group. The IA group

had median sensory and affective pain scores (12 and 3 respectively) comparable to those of RA patients reported in the literature (10 and 2), suggesting that the level of pain in this group was not unusually low (Davis et al., 2014). The results suggest that having a LTC in itself may put you at risk for having higher levels of MD than healthy controls and the type of condition/symptomology (e.g. higher pain) may be less important.

An alternative explanation for the non-significant findings in relation to differences in MD across the two groups may be that medically unexplained pain (chronic pain) is experienced differently to medically explained pain e.g. in IA. A medical explanation for the pain in IA may mean that whilst unpleasant and unpredictable, the person appraises the experience less in relation to a negative view of themselves and therefore experiences less MD.

Overall the CKD group scored higher on many psychological variables, including MD, catastrophising and health anxiety, than the IA group. This may be accounted for by the younger age of the CKD group or by the difference in disease prognosis. It may be that younger individuals interpret their LTC as having a more negative effect on their life and their identity. In a sample of individuals with Chronic Obstructive Pulmonary Disease (COPD) those over the age of 60 were significantly less likely to be depressed or anxious than those under 60 (Cleland, Lee, & Hall, 2007). Although the prognosis of both IA and CKD can be viewed as similar (e.g. uncertain, often progressive deterioration) there are differences in the severity of the end stage of each disease. In CKD end stage the patient is reliant on medical procedures (e.g. dialysis/transplant) to stay alive, whereas in end stage IA individuals will have lost function of joints (Simmons, 2013). Whilst the prognosis of loss of mobility in IA will surely come with anxiety and distress, this is something we all inevitably face as we get older. It seems reasonable that the threat of dialysis/transplant or early mortality could warrant higher levels of anxiety about the condition and the future in the CKD group.

The secondary analyses found that MD is strongly associated with psychological distress, accounting for over half of the variation in psychological distress scores. This fits with previous research on MD in chronic pain and MS (Brown et al., 2017; Tang et al., 2010). Similarly, health anxiety accounted for over half of the variation in fear of disease progression scores. This fits with previous research (Grozdziej et al., 2015) and makes logical sense; if an individual has potentially

overestimated negative beliefs about their illness it follows that their predictions of the future of their illness will also be negative and vice versa.

Clinical Implications

This study provides evidence that MD occurs across LTCs where painful symptoms are present (IA) and also in conditions where there is less pain and symptomology. Whilst the link between the experience of chronic pain, MD and catastrophising has been established, this research highlights that pain in itself is not necessary for the presence of MD. This is important clinically because when MD is present it is strongly associated with psychological distress (anxiety and depression). This information is helpful for medical professionals to be aware of so that individuals with MD might be identified and offered targeted support and psychological intervention.

The findings that MD followed by health anxiety are most strongly associated with psychological distress may not be surprising to clinicians working with these LTCs. However, it is important to be able to discriminate different cognitive processes contributing towards psychological reactions to living with a LTC so that the correct model can be used in the intervention.

It is also worth noting that in the sample studies here, both groups scored in the moderate range on the PHQ-9 and GAD-7 and only the CKD group mean just reached the cut-off (9) on the PHQ-9 often used to suggest the presence of clinical depression. This is likely to be representative of the wider population being studied, as you would not necessarily expect a group of individuals with a chronic illness to be psychologically unwell and therefore score in the severe ranges of these measures. This is important clinically as whilst the presence of MD may correlate to increased levels of psychological distress, this psychological distress is not at a severe level, which suggests less intensive interventions may be adequate. It may be that in the groups studied here, the levels of MD were not high enough to contribute to significant psychological distress, or it may be that psychological distress levels would not have changed qualitatively even with raised MD. In previous research, chronic pain patients scored higher on MD (M= 36.2 compared with IA M= 19.57 and CKD M= 26.79) however still scored within the ‘mild’ category on mood measures used (Tang et al., 2007). This suggests that whilst MD is associated with psychological distress, it alone is not responsible for changes in depression and anxiety, supporting the idea that it is

one psychological construct amongst many which contributes to these more global presentations.

Individuals with CKD may have higher levels of general anxiety, health anxiety and fear of disease progression than those with IA. Health anxiety is associated with fear of disease progression and this could potentially manifest itself in reassurance seeking, self-management issues and treatment seeking such as increased medical utilisation (Fergus, Griggs, Cunningham, & Kelley, 2017), making it an area that warrants further research. Older adults are reported to have significantly higher levels of health anxiety than younger adults (Fergus et al., 2017) yet the CKD group reported here were of a younger age than the IA group. Health anxiety in individuals with LTCs may be moderated by factors other than age, such as severity of symptoms or uncertainty of disease prognosis.

Limitations

Whilst the total sample size was adequate based on the a priori power calculation for the ANOVA, the study was underpowered for the secondary regression analyses which would have ideally had 60 participants in each group. Recruitment difficulties for the CKD group may in part have been due to the exclusion criteria. Individuals with CKD that have a GFR of less than 30 but are not yet in renal failure may be less present in online support groups (that the social media recruitment targeted) and also less frequent visitors to the renal clinics. However, the recruitment difficulties in this group do not reflect a population without need for support or treatment as those with CKD had higher levels of mental health difficulties. It could be that only this subset of those with early stage CKD have raised levels of distress, and those individuals tend to seek treatment/support more than others and were therefore captured in this research. Alternatively, it may be that the small sample of individuals here with CKD are reflective of the wider population.

A further limitation of this research is the difference in group characteristics including age and gender, which potentially confound the comparisons. The CKD group were almost entirely female (89%) which raises the question of whether between group differences reflect only gender differences. An analysis controlling for gender was conducted to check for this. In the IA group, where gender was more equally distributed, statistical analysis only revealed a significant difference between males and

females for fear of disease progression, where females scored higher. This finding goes some way to support the conclusion that the group differences for all other variables observed here do not just reflection gender differences. Gender was picked as a covariate because the between group differences were most apparent for this variable, however additional analysis including other variables e.g. unemployment as covariates could have been run and may have strengthened the analysis.

Future Research

This study offers only an initial exploration of MD in these two conditions, therefore further research involving larger numbers and longitudinal studies to explore change over time is warranted.

Whilst this study indicates the presence of MD and other psychological complications in two LTCs, further research is needed to determine whether the influence of factors associated with different stages of LTCs and to explore whether MD is common to LTCs more widely.

In addition to exploring whether MD occurs across a variety of LTCs, it would be interesting to compare expected medical prognosis with the patient's expected future prognosis and explore any associations between fear of disease progression and other psychological factors.

Conclusion

Through this initial exploration it has been identified that MD occurs in individuals with two LTCs above the level of a healthy control and that specific symptomology may be less of an indicator for MD than initially thought. In order to target individuals with the most need for intervention, we need to explore whether there are certain types of LTCs where MD is more likely e.g. those with a highly uncertain prognosis, or whether there are in fact a certain demographic of individuals who are more vulnerable to experiencing it.

Conflicts of Interest

None.

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Executive Summary of Main Research Project: Mental Defeat in Long Term Health Conditions

Health Psychology research has recently explored the role of Mental Defeat (MD) as a process contributing towards psychological distress in certain LTCs, including chronic pain. MD has been defined as the perceived loss of autonomy in the face of uncontrollable traumatic events, resulting in the person giving up efforts to retain identity and self-will. MD has been likened to a type of catastrophising focused on the self, the person's life and their identity. In contrast, general catastrophising is focused on what the pain/illness means for the person in terms of their health. In the chronic pain literature MD raised levels of MD have been indicated as an important mediator of distress and disability and as a predictor for heightened suicide risk. So far there is limited research on MD outside of chronic pain. If mental defeat does occur in other LTCs it may be a cognitive process that affects treatment seeking, suicidality, symptom severity, and levels of distress, making it a useful area for research to both improve the support available for patients and minimise unnecessary medical visits. This study aimed to explore whether mental defeat (MD) occurs in two long term health conditions (LTCs) with differing symptomology and pain levels; chronic kidney disease and (CKD) and inflammatory arthritis (IA).

The primary hypothesis was split into two parts 1a) There will be a difference in levels of MD between renal and arthritic patients (due to the difference in symptoms and treatment) and 1b) There will be no difference in levels of general catastrophizing (due to the chronic yet uncertain nature of both diseases). The secondary hypotheses were 2a) Psychological distress will be associated with mental defeat and 2b) Fear of disease progression will be associated with health anxiety.

This study used a cross sectional questionnaire design with two groups IA and CKD. Participants from both groups were recruited from NHS outpatient clinics in the local area and online via social media adverts linked to two charities supporting the conditions respectively. 28 participants were recruited in the CKD group and 54 participants were recruited in the IA group. Participants completed a battery of questionnaires about their experience of, and their beliefs and feelings about their health condition. A mixed model ANOVA and stepwise regressions were conducted to explore hypotheses 1 and 2 respectively.

MD occurred in individuals with both IA and CKD at levels higher than that of a healthy sample, but that was no significant difference between the two conditions. The results presented here suggest that the experience of sensory pain is not necessary for MD to be present. Catastrophising occurred equally in both groups. Having a LTC with an unpredictable and uncertain prognosis may contribute to negative beliefs about the future of the illness itself and its effect on an individual, as well as negative beliefs about the self and identity.

A stepwise regression revealed that MD, health anxiety, disability and catastrophising were all associated with psychological distress. A second regression revealed that MD, age, and health anxiety predict fear of disease progression. Pain was removed from both regression models, suggesting that it was not associated with psychological distress or fear of disease progression in either group.

Overall the CKD group scored higher on many psychological variables, including MD, catastrophising and health anxiety, than the IA group. This may be accounted for by the younger age of the CKD group or by the difference in disease prognosis. There were significant differences in gender between the two groups, with the CKD group being 89% female. This difference, along with numbers recruited and age differences between the two groups is a limitation of this study.

Through this initial exploration it has been identified that MD occurs in individuals with two LTCs above the level of a healthy control and that specific symptomology may be less of an indicator for MD than initially thought. In order to target individuals with the most need for intervention, we need to explore whether there are certain types of LTCs where MD is more likely e.g. those with a highly uncertain prognosis, or whether there are in fact a certain demographic of individuals who are more vulnerable to experiencing it.

Connecting Narrative

Main Research Project: Mental Defeat in Long Term Conditions

The courses' ethos and specialist interest in Health Psychology helped me to pick this area for my main research project due to the expertise already held amongst course staff and previous trainees. The process of designing my research was very difficult as I had very limited research experience prior to training, but I was very lucky to have good support from my supervisors in this process. I learnt a lot during this process and quickly realised that my 'research idea' was extremely vague and I learnt how to move from a vague idea into a concrete research question and hypotheses with a study design to match this. Writing the research proposal and presenting it to the research team for approval helped to ensure that the research design was sound from an early stage. Something I will always remember form this time is the advice that "good research shouldn't aim to change the world but instead just aim to answer one, new question."

Gaining NHS ethical approval is something that I will probably always recall as very difficult due to the long and unknown process. However, it is certainly something that I am pleased to have experienced on training as I now feel much better equipped to complete this again when I am involved in research in my post-qualification practice. It was very helpful to have advice from the year above on the IRAS process. I didn't realise until completing the IRAS form how much detail of your research you had to have set in stone, e.g. measures etc. This came from a place of naivety and inexperience with this process, but I now see that having all of the details of the research worked out before ethical approval is of course required so that the panel can make an informed decision. My study only needed proportionate review as opposed to a full Research Ethics Committee (REC) review so once I had submitted my IRAS form I was lucky enough to get approval quickly after a few amendments. With NHS ethical approval granted, the University ethical approval and local R&D (via HRA) was also granted quickly.

I started recruiting for the project in late summer last year. I expected this process to be slightly smoother than it was. I think that I was optimistic…despite the helpful warnings from others that recruitment is always more difficult than you expect. I struggled to recruit the numbers I had predicted for my CKD group for two main reasons. Firstly, despite speaking with a Consultant from the service about the set-up of

the clinics and my target population, during the recruitment period it transpired that individuals who met my inclusion criteria were not as common in these clinics as predicted. Secondly, due to high staff turnover and associated stress levels and an increase in agency staff, staff who had agreed to help out with recruitment were no longer able to do so.

Both of my internal supervisors who have experience of research/clinical work in health psychology really helped me to apply theoretical knowledge to my research, both in the design stage but also when writing up results. I was able to consult with individuals with PPE to pilot my questionnaire and I was also able to consult with a Consultant from each LTC to help me narrow my inclusion/exclusion criteria. The Consultant from Rheumatology helped me to recruit and was key to ensuring I got good number in this group.

The results of my main research project are not quite what we predicted, however, just the results are still clinically useful and interesting. My project explores mental defeat in two long term conditions and there are not the hypothesised differences in levels of mental defeat across the two conditions. My findings suggest that just having a long term condition itself may be the important factor which makes you vulnerable to the psychological complications associated with long term conditions, as opposed to the types of symptoms you experience. The knowledge I have gained from my project is helping me in my current placement as I am working in paediatric health with the renal team and one of the conditions in my research was chronic kidney disease. I had hypothesised that in the early stages of CKD individuals would experience less psychological distress and MD but this is not the case, and my developing understanding of the condition and the uncertainty of the prognosis fits with this.

Service Improvement Project: An evaluation of the Current Screening Tools used in the Offender Personality Disorder (OPD) Pathway

When I heard about this SIP with the Pathfinder team I was immediately interested as it combined two areas I had interest/experience in; Forensics and Personality Disorder. I liked the fact that it was a mixture of quantitative analysis to look at the numbers of people screened in and out of the service using a national tool, and then a qualitative analysis to find out about the experience of an additional screening process the team had implemented. As the service improvement project is by

its nature led by the service's need, there was less of a process of development in this project than the others.

This is the project which I was able to get going with quite quickly in the first year. I applied for ethical approval from the university and from the local R&D team and this was granted without any problems. I had to wait to schedule the focus-group interview for the team away day but prior to this I could get on with the quantitative analysis myself, which involved coding a spreadsheet of data that is routinely kept by the service to look at the numbers of false positives and false negatives identified through using the screening tool. In terms of recruiting for the focus-group, I sent out information sheets and consent forms prior to the day so that people had the chance to consider their involvement. I had over six people consent to participating in the focus-group but on the day only five took part, one of whom contributed very minimally.

Running the focus group itself was a good learning experience. I felt nervous attending a team away day and facilitating discussion for a group of people I hadn't met before however it went well and I felt this experience boosted my confidence. Analysing the focus-group was a steep learning curve as I had never undertaken qualitative research of thematic analysis before. My field supervisor let me borrow a book which he had used when doing his first analysis and I found this very helpful as it broke the process into stages and spoke specifically to analysing focus-groups, as opposed to individual interviews. This evidenced framework definitely helped me to complete this piece of work. As I progressed through identifying my themes and subthemes I found it very helpful to have feedback from both my internal and external supervisors on how they might categorise, name and explain the themes I had initially identified.

The quantitative results of the project suggested that the screening tool was more accurate than the team had expected it to be, with it only 'missing' a very small number of cases. The qualitative analysis suggested that the additional screening process was deemed useful by staff but that there needed to be boundaries around the spacing of the interviews, the length of the interviews and the amount of information shared to ensure the process was time efficient in the long run. I fed these results back to the team at their next away day and engaged in a small discussion with the manager and the team members. This is something that stands out for me as an experience which reminded me of the importance of doing useful/applicable research, rather than research for the sake of it. The team were very grateful for the work I had put in and

were going to use the results to inform their practice, specifically they planned to streamline their screening process to only discuss positive results from the screen as the tool appears to be over-inclusive.

Critical Review of the Literature: How effective are medium-term CBT interventions in treating BPD?

I selected this area for my literature review due to my already mentioned interest in borderline personality disorder. This stemmed from experience working with individuals going through DBT, noticing how all-encompassing the illness can be but also noticing how much of a positive impact the therapy had. Having worked in secondary mental health services I also knew that access to this comprehensive therapy was limited and that there are now shorter interventions being offered for individuals with BPD. In my first placement, I was able to co-facilitate the STEPPS group, a 20-week programme. When I met with my internal supervisor to discuss literature review ideas and this idea came up it seemed to fit with my experience and my interests very well.

With the question set, I moved on to defining my search terms and inclusion/exclusion criteria for the review. I found this difficult as I had not engaged in a systematic review before and had limited experience of using the databases and their advanced search functions. When I had a rough set of search terms I met with the librarian who was extremely helpful in helping me to adjust my terms to capture what I needed across the different databases. Unfortunately, my searches returned a large volume of abstracts (almost 3000) due to the fact that I needed to search broadly for cognitive behavioural type interventions and then narrow down to the 'medium-length' by hand, as there were no search terms that could easily quantify this. The process of reviewing the abstracts and discarding the unnecessary ones was very time consuming, especially as many abstracts didn't define the length of the intervention so I had to review the full text.

Initially I included all intervention studies, not just RCTs, as I was unsure that there would be enough RCTs to include. However, myself and my supervisors were pleasantly surprised to find that there were enough. With the decision to only include RCTs came the decision to complete a meta-analysis alongside the systematic review. This is not something I have experience of so I had to do a lot of reading and consult with a statistician in the department to work out the best way to do this. I found this

very challenging as some of the concepts of advanced statistics can be difficult to get your head around. However, through this process I have learnt a huge amount and I am glad that I was able to add an extra layer of quantitative analysis to my review. I chose to keep my review focused on BPD outcome measures and risk outcomes, although there are many more outcome measures used and reported in the BPD literature. I did this so that the review is easy to read and digest, and so that clear conclusions can be drawn, instead of presenting. I have received very helpful supervision from both my internal and external supervisor, especially regarding the write-up of my review. Advice from a statistician, alongside reading, helped me to decide which method of meta-analysis to use.

The results of my review are clinically useful as they suggest that medium term interventions are effective in reducing BPD symptoms measured by BPD outcome measures. At a time when there is pressure on the NHS to provide more for less this information can help to inform decisions on whether to provide shorter interventions. The results of the review were less conclusive about the impact of medium term interventions on risk behaviours as only a small number of RCTs reported significant improvements in the intervention group. This too is clinically very useful. The National Institute of Health Research (NIHR) have been in contact with me to ask for the results of my review, after seeing my protocol published online.

Case Studies

For me, the process of writing the first case study felt extremely different from writing the remaining four. I remember looking up examples and feeling very unsure about what to include in my first case study and how to write up my work. I was in a position on my first placement where I had limited cases therefore the decision of which case to write up was made a lot easier. Receiving feedback on my first case study and then making the necessary amendments to get it to pass felt like a relatively large milestone. I certainly learnt a lot about my preferred style of writing up cases and what is expected from a course/academic point of view when writing case studies, as each case study that followed felt a little bit easier. I suppose the process of picking an individual and writing it up became more familiar and this allowed for the process to be more reflective and allow for thinking space on each client, instead of worrying about what I had to include in terms of pass criteria. I was fortunate that in my C2-C5

placements, the individual I chose to write-up gave their consent without any difficulties.

Writing up the case studies throughout the placements also helped to consolidate my theoretical knowledge of each presenting problem, both the model specific knowledge and also the crossover in the cognitive theory for example.

My C1 and C3 case studies were single case experimental designs and these felt more difficult just in terms of making sure I collected enough baseline measures and idiosyncratic measures. Learning about the requirements for SCEDs made sense in teaching however the reality of trying to collect good quality outcome measures regularly can be quite different. Whilst it is good practice and many services 'should' be doing it routinely, my experience is that many of the services I have worked in do not. I think that collecting measures for the purpose of the case studies helped me to consolidate this into my practice so that going forward I will aim to regularly collect outcome measures from my clients.

Receiving written feedback from my supervisors on my written case studies provided an interesting contrast/difference in communication methods, as we had been discussing the case verbally in supervision throughout the placement. It was also interesting to compare the feedback from my placement supervisors whose recommendations often centred around aspects of the case context or intervention, as opposed to feedback from my academic marker, which often focused more on theory and literature. Both types of expertise helped me to create five case studies which I am proud of and I feel reflect a range of the CBT work I have engaged with over the course of training.

Looking forward to my post-qualification work, I would like to consider writing up interesting case studies for publication, when this feels possible and useful. I recognise that time to engage in research and academia can be very hard to find with a demanding caseload, so even if I am unable to write up a case that I would like perhaps sharing interesting case work amongst peers and the team would help to spread knowledge and good practice. This could be as formal (e.g. monthly case study meetings with an allocated presenter) or informal (peer discussion) as required.

I think time will be the biggest barrier to me engaging in research projects in my role once I'm qualified. Whilst this could make it easy to take a step back from research in my next job, I think doing this would mean losing the huge amount of research knowledge I have gained through the Doctorate; therefore I think it would be

very beneficial to ‘use it not lose it’. As a first step I think planning to actively find opportunities in the service for audit or consultancy within the first year of my role would help me to stay active in the field of research whilst managing the transition to qualified clinical work.

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I have heard other people say that it is the peer support of others on their cohort that got them through training, and it really is true! It has been amazing to go through this experience with such a supportive and lovely cohort. I have made lifelong friends on this course and it has been invaluable to have their support and understanding at difficult times in training, when nobody else quite understands what you are going through. So, thankyou cohort 2015! We made it all the way over from East to West and got a new building along the way!

I would like to thank my Mum and my Dad for always supporting me in my pursuit of this career over the past seven years. Although my Dad still asks 'What is it you actually do?' and may still think I'm on my C4 placement in Cheltenham, it is lovely to know that they are interested in my success and my career. I need to thank my sister, Kerry, who I think may be my biggest cheer-leader. Her texts of support to tell me how proud she is of me have been invaluable in keeping me going when things have become tough.

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Appendix A

List of other outcome measures used by each study

Author Name (Year)	Outcome Measures uses
Adreasson et al. (2016)	Hamilton Depression Rating Scale (HDRS) Beck Depression Inventory II (BDI-III) Beck Hopelessness Scale (BHS) Rosenberg Self-Esteem Scale (RSE)
Blum et al. (2008)	Clinical Global Impression- Self-Rated (CGI-SR) Glasgow Anxiety Scale (GAS) Beck Depression (BDI) Symptom Check-list 90 revised (SCL-90-R) Barrett Impulsiveness Scale (BIS-II) Social Adjustment Scale (SAS)
Bos et al. (2010)	Symptom Check-list 90 (SCL-90) WHO Quality of Life Assessment BREF (WHOQOL-BREF)
Farrell et al. (2009)	Symptom Check-list 90 (SCL-90) Global Assessment of Function Scale (GAFS)
Gratz et al. (2006)	Difficulties in Emotion Regulation Scale (DERS) Acceptance and Action Questionnaire (AAQ) Depression Anxiety Stress Scale (DASS)
Koons et al. (2001)	Beck Depression (BDI) Hamilton Depression Rating Scale (HDRS) Dissociative Experiences Scale (DES) Hamilton Anxiety Rating Scale (HARS) Spielberger Anger Expression Scale (SAES) Health care utilisation
Moreton et al. (2012)	Depression Anxiety Stress Scale (DASS) Acceptance and Action Questionnaire (AAQ) Difficulties in Emotion Regulation Scale (DERS Five Factor Mindfulness Questionnaire (FFMQ) The Affective Control Scale (ACS)
McMain et al. (2017)	State-Trait Anger Expression Inventory (STAXI) Distress Tolerance Scale (DTS) Symptom Check-list 90 (SCL-90) Beck Depression Inventory II (BDI-III) Social Adjustment Scale self-report (SAS-SR) Difficulties in Emotion Regulation Scale (DERS Health care utilisation
Paacual et al. (2015)	Hamilton Anxiety Rating Scale (HARS) Barrett Impulsiveness Scale (BIS-II Functional Assessment Scale Test (FAST) Montgomery-Asberg Depression Rating Scale (MADRS
Soler et al. (2009)	Symptom Check-list 90 (SCL-90) Hamilton Depression Rating Scale (HDRS) Hamilton Anxiety Rating Scale (HARS) Brief Psychiatric Rating Scale (BPRS) Barratt Inventory (BI) Buss-Durkee Inventory (BUDI)

Appendix B

Instructions to Authors/Submission Guidelines for Acta Psychiatrica Scandinavica

Manuscripts

Consult a current issue of the Journal for style and format. The text should be in double-spacing with broad margins. Review articles/meta-analyses, clinical overview articles and original articles all follow the same concept:

Title page:

A concise, informative title (max 15 words; abbreviations, acronyms), the authors' names, the names in English of departments and institutions to be attributed, and their city and country of location. Please also include a running title with a maximum of 50 characters (letters and spaces). Name, telephone number, e-mail address and full postal address of the corresponding author should be stated.

Page 2:

Abstract not exceeding 200 words with the following structure: Objective, Method, Results, and Conclusion (the main part of the Abstract is devoted to Results). - Indication of 3 - 5 keywords in strict accordance with Medical Subject Headings.

For review articles/meta-analyses specifically:

Summations. Provide up to 3 significant Summations encapsulating the 'take-home messages' of the paper, and identify the main issues addressed with particular emphasis on their clinical and/or scientific significance. The Summations should be presented succinctly (1 max 2 sentences each), in tabulated form, and logically emerge from the conclusions of the paper (without repeating). However, they must not be dogmatic, raise new issues or pose further questions.

Considerations. In addition, each review article must cite up to 3 noteworthy Considerations in which authors essentially criticise the summations and include any caveats or limitations either of the review process or its conclusions.

Introduction:

One to two pages concluded by the subtitle *Aims of the Study* (3 to 5 lines without literature references and abbreviations).

A thorough Material and methods section. It should be possible to read every article by itself. The author cannot refer to design, method and material described in previously published articles.

Results. Clear and short avoiding double documentation to tables/figures.

Discussion:

Acta Psychiatrica Scandinavica articles do not have a conclusion section. If the authors find it necessary, they may include a concluding remark of maximum 5 lines as the final part of the Discussion.

Acknowledgements:

Should include grants, sponsorships and other support to the study. Some authors may wish to thank other collaborators apart from the authors. It is stressed that only a very few people can be listed. It is the responsibility of the author to obtain written permission from the persons mentioned.

Declaration of Interest:

Must be given if the study in any way involves pharmaceutical companies or other private or public enterprises. Each author must declare him/herself in general and not only in relation to the present study. If the study in any way investigates pharmaceutical compounds, the *Declaration of Interest* must contain information about by whom and which institutions the statistical analyses were performed and an e-mail address where to obtain the protocol. Clinical studies must be registered in online clinical databases. Please state date for registration and registration number.

Tables and figures:

Must include legends. A maximum of 5 tables/figures can be included. Figures are given priority. Colour prints are welcomed, but please notice that authors must cover the additional production cost.

Systematic reviews and meta-analyses

Acta Psychiatrica Scandinavica welcomes submission of systematic reviews and meta-analyses. Such submissions must follow both the general guidelines for manuscripts outlined above as well as the guidelines provided in the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) Statement: http://www.prisma-statement.org/PRISMAStatement/PRISMAStatement.aspx

Abbreviations and symbols

For abbreviations and symbols use Units, Symbols and Abbreviations for Authors and Editors in Medicine Related Sciences, Sixth Edition. Edited by D.N. Baron and M McKenzie Clarke. ISBN: 9781853156243, Paperback, April, 2008. All terms or abbreviations should be fully explained at first mention. All units should be metric. Use no Roman numerals. Abbreviations are not allowed in titles, headings and "Aims of the Study".

References

Should be kept to the pertinent minimum and numbered consecutively in the order in which they appear in the text in accordance with the *Vancouver System*. Identify references in text, tables, and legends by Arabic numerals (in parentheses). References cited only in tables or figure legends should be numbered in accordance with a sequence established by the first identification of that figure or table in the text. Use the style of the examples below, which are based on Index Medicus. Abstracts cannot be used as references, unless published in an indexed scientific journal. Include manuscripts accepted, but not published; designate the abbreviated title of the journal followed by (in press). Papers published electronically, not yet hard copy publication should be identified by their DOI-number. Information from manuscripts not yet accepted should be cited in the text as personal communication. References must be verified by the authors against the original documents. Titles of journals should be abbreviated in accordance with Index Medicus. Examples:

Standard journal article: List all authors when 6 or fewer. When there are 7 or more, list only the first 3 authors and add "et al".

Illustrations/tables

All figures/tables should clarify the text and their number be kept to a minimum and not exceed 5 in total. Avoid data overload. Details must be large enough to retain their clarity after reduction in size. Illustrations should be planned to fit the proportions of the printed page. Colour illustrations are welcomed. Authors must cover the production cost of colour illustrations. Download the publisher's Colour Work Agreement Form.

Copyright Transfer Agreement

If your paper is accepted, the author identified as the formal corresponding author for the paper will receive an email prompting them to login into Author Services; where via the Wiley Author Licensing Service (WALS) they will be able to complete the license agreement on behalf of all authors on the paper.

Appendix C

The OASys PD Screen Items

OASys PD screen

1. One of more convictions aged under 18 years
   Violence/threat of violence
2. coercion
3. Excessive use of violence/sadistic violence
4. Recognises victim impact?
5. Financial over reliance on friends, family, others for support
6. Predatory lifestyle
7. Reckless/risk taking
8. Childhood behaviour problems
9. Impulsivity
10. Aggressive/controlling behaviour.
    Additional personality disorder item indicators
    a. Childhood Difficulties
    b. History of mental health difficulties
    c. Self harm/ suicide attempts
    d. Challenging behaviour

Appendix D

Interview Schedule for Focus-group (6-8 participants) and suggested prompts

1. What effect do you think the addition of the screening interviews (to the OASys) tool) has had on the screening process as a whole?

2. What role does the OASys tool have in the screening process?

3. What has been your experience of the screening interviews so far?

4. Are there ways in which you think the screening interviews are beneficial/helpful?
   - For OPD clinicians?
   - For service users?
   - For probation officers?

5. What, if anything, would you change about the current screening process?
   - Is there anything particularly difficult or unhelpful that you have experienced?

6. How time effective do you think the current screening process is?

7. Do you have any other comments about the process of running the screening interviews?

Appendix E

Evidence of Ethical Approval for SIP

1. University Approval (Emails)

To: Zoe Mawby
Subject: Ethics 16-245: An evaluation of the Current Screening Tools used in the Offender Personality Disorder (OPD) pathway

Dear Zoe Mawby,

Reference number 16-245: **An evaluation of the Current Screening Tools used in the Offender Personality Disorder (OPD) pathway**

The ethics committee have considered your application for the study above and have given it conditional ethical approval.

The committee have raised the following points which they would like you to attend to before giving the study full ethical approval:

1. Please confirm that the data will be stored in compliance with the University's Research Data Policy.
2. Please verify that warnings will be made to avoid using offenders' names during the interviews as suggested in the ethics email. This should also be mentioned in the information sheet.
3. Please provide evidence of R&D approval when obtained.

Please send the required information and revised document to me - you can do this by email to the Ethics Committee:psychology-ethics@bath.ac.uk

Please remember that you may not collect any data until you have ethical approval.
Yours sincerely,
Dr Nathalia Gjersoe
Chair, Psychology Research Ethics Committee

To: Zoe Mawby
Subject: Ethics 16-245: An evaluation of the Current Screening Tools used in the Offender Personality Disorder (OPD) pathway Dear Zoe,

Thank you for your amendments and further evidence. I am happy to approve your amended application via Chair's Action.

All the best with your data collection,
Dr. Nathalia Gjersoe
Chair, Psychology Ethics Committee

2. Research and Development Approval

Zoe Mawby
Trainee Clinical Psychologist
University of Bath
z.mawby@nhs.net
zm272@bath.ac.uk

by email

Avon and Wiltshire Mental Health Partnership AWP Trust
R&D Department
Fromeside- East Wing
Manor Road
Fishponds
BS16 2EW
0117 378 4266

1 November 2016

Dear Zoe,

Re: An evaluation of the Current Screening Tools used in the Offender Personality Disorder (OPD) Pathway

This letter is to confirm that your evaluation is now approved. Furthermore, as your project is with staff, formal NHS ethical committee approval is not required.

If you do need any further support or information, please contact us using the contact details above, quoting our reference number for your study.

The importance of disseminating all evaluation work cannot be over emphasised. It is only by sharing our learning that we can improve services across AWP. For this reason, the findings of all evaluation work should be reported to the R&D team via email. The team will champion the results of service evaluations, and work with evaluators to ensure those results are disseminated and acted upon, and that the results of evaluations are reflected in future service delivery. The team will also work with evaluators to produce publications for the public domain.

We look forward to receiving the results of your evaluation in due course.

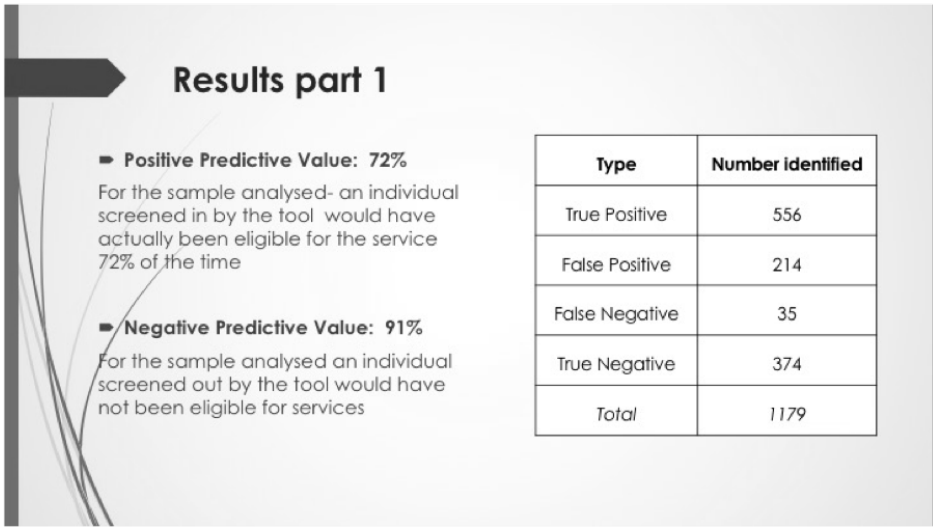
Yours sincerely,

Dr Julian Walker
Consultant Forensic Clinical Psychologist
R&D Director
AWP

Cc Dr Andrew Newman

Appendix F

Slides from the presentation of results to the service



Results part 1

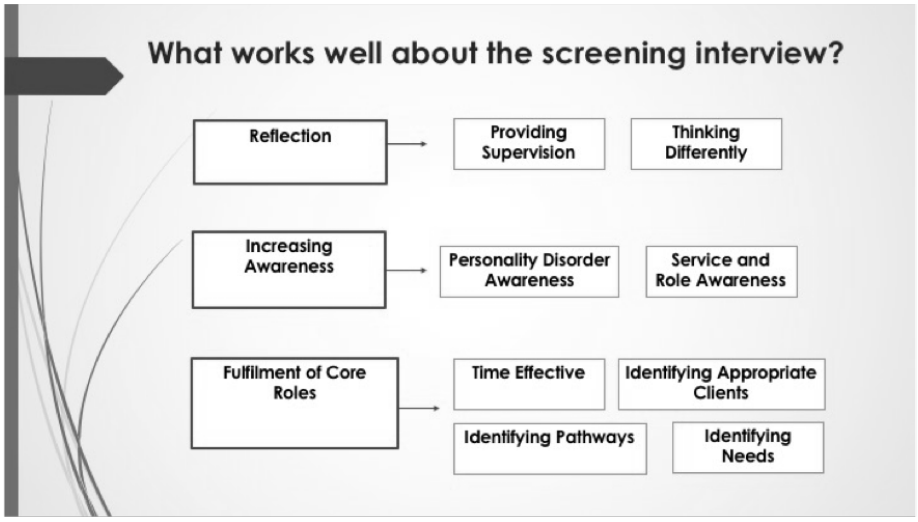
- **Positive Predictive Value: 72%**

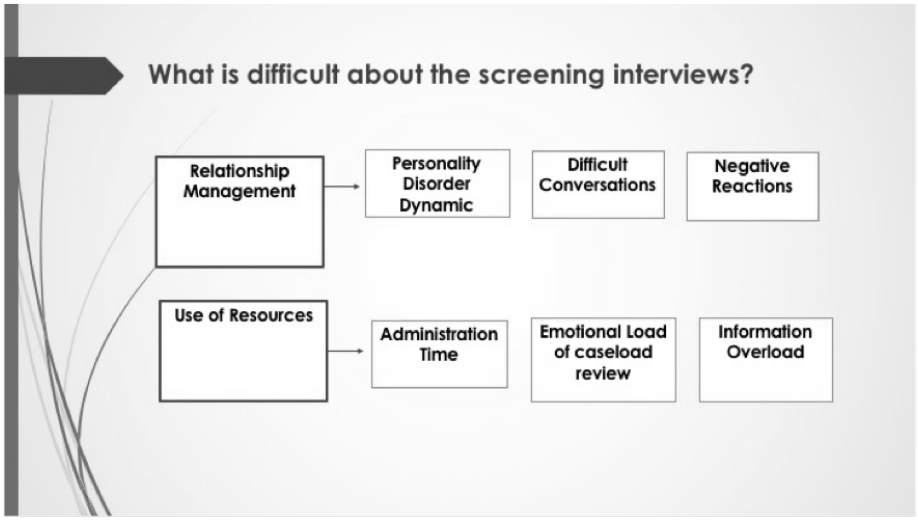
For the sample analysed- an individual screened in by the tool would have actually been eligible for the service 72% of the time

- **Negative Predictive Value: 91%**

For the sample analysed an individual screened out by the tool would have not been eligible for services

Type	Number identified
True Positive	556
False Positive	214
False Negative	35
True Negative	374
Total	*1179*




What is difficult about the screening interviews?
Relationship Management
Personality Disorder Dynamic
Difficult Conversations
Negative Reactions
Use of Resources
Administration Time
Emotional Load of caseload review
Information Overload


How can this be improved?
Appropriately Spaced
In Pairs
Zoe Mawby
Trainee Clinical Psychologist
University of Bath
Dr Andrew Newman
Clinical Psychologist
OPD Pathway/Secure Services
Dr Megan Wilkinson-Tough
Clinical Psychologist/Academic Supervisor
University of Bath

Appendix G

Instructions to Authors/Submission Guidelines for Probation Journal

Article Types

The Journal is published quarterly, in March, June, September and December, by SAGE Ltd. We welcome contributions on a wide range of subjects and encourage contributions from practitioners, and those with substantial practice experience, which inform and illuminate the realities of work with offenders and promote good practice. *Probation Journal* is not limited to probation issues and welcomes submissions from those interested in the wider community justice arena (e.g. Youth Justice, Community Safety Projects, Prisons, Police, Victim Support, Voluntary Organisations). Articles which inform the realities of practice, evaluate effectiveness and genuinely enhance understanding of difference and anti-oppressive values are particularly welcome.

Full Length Articles: Normally around 4000-7000 words though all contributions up to a maximum of 7,500 words including references will always be considered. Apart from full-length articles, shorter *Comment* articles and *Practice Notes* are very welcome.

Preparing your manuscript for submission

Formatting

The preferred format for your manuscript is Word. LaTeX files are also accepted. Word and (La)Tex templates are available on the Manuscript Submission Guidelines page of our Author Gateway.

Quotations: Quotations of about 20 words or more should be placed on a new line and indented. Place all quotations within single quotation marks. Only quotes within quotes should appear in double quotation marks.

Abbreviations: The names of organisations, etc. should be mentioned in full on the first occasion with the abbreviated version in brackets, and thereafter in the abbreviated version. For example, '...women remanded for pre-sentence reports (PSRs)...'. If, say, NPS or NOMS are referred to, full stops (as in N.P.S.) are not necessary.

Capitals: ‘Emphasis capitals’ should be avoided. Do not capitalise ‘police officer’, ‘probation service’, criminal justice system, etc.

Diagrams and Tables: These should be used sparingly. Their location in the text should be indicated clearly in the typescript.

Title, Keywords and Abstracts

Titles and Sub-Headings: The suggested title should appear on the first page of the manuscript. Sub-headings are encouraged to create a more readable, accessible and logically developed paper. Please use normal sentence case type.

Abstract: The submission should be preceded by an abstract of 50-100 words indicating the scope and intention of the piece. This helps the assessors and will be used to prepare an introductory ‘trailer’ to published articles.

Keywords: 5-10 keywords should be supplied with each article.

Supplementary material

This journal is able to host additional materials online (e.g. datasets, podcasts, videos, images etc) alongside the full-text of the article. For more information please refer to our guidelines on submitting supplementary files.

Reference style

Probation Journal adheres to the SAGE Harvard reference style. View the SAGE Harvard guidelines to ensure your manuscript conforms to this reference style.

References should be presented in the SAGE Harvard system, as below:

Appendix H

Screening questions for CKD Group

We would like you to answer a few questions to check that you meet the criteria for participating in this study. Please circle the response to each question:

1. Are you aged under 18 years? **Yes / No**

2. Do you consider yourself to be NOT fluent in English? **Yes / No**

6. Do you have a GFR score of 30 or above? **Yes / No**

7. Have you had a kidney transplant? **Yes / No**

8. Are you currently receiving dialysis? **Yes / No**

If you have answered Yes for any of the questions above, you unfortunately do not meet the criteria for the study. Please do not continue with the questionnaire. We would like to take this opportunity to thank you for your interest in this study, and for your participation thus far. Please contact the researcher if you have any questions about the study.

Screening questions for IA Group

We would like you to answer a few questions to check that you meet the criteria for participating in this study. Please circle the response to each question:

1. Are you aged under 18 years? **Yes / No**

2. Do you consider yourself to NOT be fluent in English? **Yes / No**

3. Do you have a type or arthritis that is NOT Rheumatoid or Psoriatic? **Yes /No**

If you have answered Yes for any of the questions above, you unfortunately do not meet the criteria for the study. Please do not continue with the questionnaire. We would like to take this opportunity to thank you for your interest in this study, and for your participation thus far. Please contact the researcher if you have any questions about the study.

Appendix I

Background information Questionnaire

1. What gender do you identify as (please circle)? Male / Female/Other (please specify_____)

2. What is your age? ……years

3. What is your ethnicity? (Please tick)

White		**Asian**	
British		Indian	
Welsh		Pakistani	
Irish		Bangladeshi	
Scottish		British	
Other		Other:	
Black		**Mixed**	
African		White and Black Caribbean	
Caribbean		White and Black African	
British		White and Asian	
Other		Other	
Any Other (specify below)			

4. What is your employment status? (Please tick)

Employed (full time)		Homemaker	
Employed (part time)		Student (Full time)	
Employed (self)		Student (Part time)	
Unemployed (Seeking work)		Retired	
Unemployed		Volunteer	
In receipt of benefits			

5. What is your highest level of Education? (Please tick)
☐ No education ☐ Primary school ☐ City and guilds ☐ G.C.S.E.s

☐ 'A' levels ☐ University Degree ☐ Master's Degree ☐ PhD
☐ Other (specify which):_____

6. What would you describe as your relationship status? (Please tick)
☐ Married/civil partnership ☐ Single
☐ Divorced/separated ☐ Widowed

7. What type of kidney disease are you diagnosed with? (Please tick)*

☐ Diabetic Nephropathy ☐ Hypertensive Nephropathy ☐ Renovascular Disease

☐ Glomerulonephritis ☐ Polycystic Kidney Disease ☐ Undiagnosed cause
☐ Other

8. Below are a list of commonly reported symptoms of chronic kidney disease. Please tick all that apply to you.*
☐ Tiredness/Sleepiness ☐ Lacking energy ☐ Itchiness ☐ Cramps
☐ Nausea

9. How would you rate the severity of your symptoms? (Please circle)

1	2	3	4	5
None	Mild	Moderate	Severe	Very Severe

11. Do you find your current treatment for your kidney disease burdensome? (Please circle). Burdensome is defined as difficult to carry out or taxing.

1	2	3	4	5
No	A little	Moderately	Very	Extremely

12. Do you have any other physical health conditions? Please tick all that apply to you.

Heart Condition	
Respiratory (Breathing) Condition	
Diabetes	
Inflammatory/Autoimmune Condition	
Other	

13. Do you have any current or historic mental health conditions? Please tick all that apply to you.
☐ Anxiety ☐ Depression ☐ Psychosis ☐ Bipolar Disorder

☐ OCD ☐ Other (please specify) _____

Thank you for completing this information.

On the following pages you will now be asked to complete a series of questionnaires. **Please complete these questionnaires in relation to your kidney disease and the kind of physical experiences you may have because of this condition e.g. nausea, dizziness, high or low blood pressure.***

NOTE: * indicates questions which had slight variations for the IA group background information questionnaire, e.g. asking about common types of arthritis and symptoms instead of CKD

Appendix J

Ethical Approval Information
Consent Form

UNIVERSITY OF BATH

Client consent form – Psychological Reactions to Physical Illness

Before completing this consent form you should have read the information sheet titled "Participant Information Sheet"

Your researcher is Zoe Mawby a trainee Clinical Psychologist registered with the University of Bath and undertaking a Doctorate in Clinical Psychology. This research is being conducted under the supervision of Dr Cara Davis (University of Bath) and Professor Paul Salkovskis (University of Bath).

Please read the following items and tick to say that you have been provided with information on each and understand each item.

	Please Tick
I have read the participant information sheet (Version 1 Date 14/02/2017) and had the opportunity to ask any questions.	
I understand what will be required of me if I take part in this study.	
I understand that the information I provide will be anonymous, stored securely and kept confidential, except in the circumstances where information is provided that may place the participants or others at risk.	
I agree for anonymised data that I provide to be used in reports for publication.	
I understand that I have the right to withdraw from the study at any point without giving a reason. I can request that my data be withdrawn from the study and destroyed up until the point that I hand my completed questionnaires in (as after this point your forms will be anonymous).	
I consent to participating in the study.	

Name of participant (Print) Signature of participant Date

Information sheet (CKD version shown)

University of Bath- Department of Psychology

Participant Information Sheet

We would like to invite you to take part in a research study. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Please ask us if there is anything that is not clear or if you would like more information; contact details are available below. Take time to decide whether or not you wish to take part.

Study Title: Psychological Reactions to Physical Illness

Why is the study being done?
This study aims to find out more about people's psychological reaction to having chronic health conditions (including Chronic Kidney Disease) so that treatment for any psychological distress associated with chronic health conditions can be improved.

Do I have to take part?
No you do not have to take part in the study. Your decision to take part in the study, or not take part in the study will not have any impact on the treatment you receive here at the clinic.

What will I be asked to do?
Participants will be asked to complete a pack of self-report style questionnaires about their beliefs and experiences relating to their condition. There are a number of questionnaires and we estimate that this should take most people no longer than 20-25 minutes to complete.

Where and when will the study take place?
If you decide you would like to take part in the study the questionnaires will be provided for you today. You are invited to complete these during your visit to the clinic and we ask that you return the completed questionnaire pack into the box labelled 'Psychological Reactions Questionnaires'. We are happy to discuss an alternative method of completing/returning your questionnaire pack if this is more convenient to you.

What will happen to the information I provide?
The information you provide will remain anonymous as you will not be asked to give your name or any personally identifiable information. The data from the completed set of questionnaires will be compared to data from participants with a different chronic health condition. The findings will be written up and published in an academic journal. A poster summary of the findings from the research will be posted in the clinic waiting room and online on the following website: (url tbc)

Are there any advantages to taking part?
The benefits of taking part in this study include contributing to research which improves understanding about the psychological impact of chronic health conditions which could subsequently lead to improved treatment of psychological distress in health conditions. A charity donation of £2 will also be made to the National Kidney Federation for every completed set of questionnaires returned in this study.

Are there any disadvantages to taking part?
We envisage that the disadvantages of taking part in this study will be minimal. Some of the questionnaires involve questions about sensitive topics including the impact of living with the CKD. Some participants may find this upsetting to think about. If you do decide to take part in the research and you feel distressed at any point then you can stop participating in the research with out giving a reason and without repercussion. If you do feel distressed and would like to speak to somebody then you can contact the Lead Researcher (Zoe Mawby, Clinical Psychologist in Training).

Some links to information and support that you may find useful are listed below.

What do I do next if I am interested in taking part?
If you would like to take part in the study then please read and sign the consent form also given to you and collect the questionnaire pack from the reception desk to complete. If you do not have the consent form or access to the questionnaire packs then please ask the individual who gave you this information sheet and they will be able to provide these for you.

If you would like to discuss the study further then please contact:

Zoe Mawby z.mawby@bath.ac.uk (Clinical Psychologist in Training at the University of Bath currently working in AWP CAMHS services in Weston-Super Mare. This piece of research will form part of my D. Clin. Psy qualification and is supervised by Dr Cara Davis- Clinical Psychologist/Clinical Tutor at the University of Bath)

Thank you for taking the time to read this information sheet. Please do not hesitate to contact us if you would like further information.

Links to Useful Information and Support

- National Kidney Patients UK Helpline - http://www.kidney.org.uk/helpline
  Tel: 0845 601 02 09
  Email: Helpline@kidney.org.uk

- National Kidney Patients Help and Info - http://www.kidney.org.uk/help-and-info/

- British Kidney Patient Assosication Counselling and Support Service- http://www.britishkidney-pa.co.uk/patient-support/counselling-and-support-service
  Tel: 01420 541424
  Email: info@britishkidney-pa.co.uk

Debrief Sheet

Psychological Reactions to Physical Illness Debrief Sheet

Thank you for taking part in this study
Below is some information on the purpose of the study and what happens next

What was the study interested in?
You have taken part in a study which will help us to understand the different thought processes and emotional experiences that might occur in response to living with chronic health conditions.

The questionnaires you completed were designed to capture your experience of living with your chronic health condition and your emotional and psychological reactions to this.

In this study we are interested in something called Mental Defeat (MD). MD is a psychological state where you feel as though you have no control over your future and you feel as though you have lost your identity as an independent human being. Research has shown that when MD occurs in Chronic Pain patients these patients experience greater psychological distress and respond less well to treatment.

We are collecting data from two groups of individuals; those with Inflammatory Arthritis and those with Chronic Kidney Disease (CKD). We are interested in seeing if there are differences in the ways thoughts and feelings work in relation to MD across different health conditions. It is hoped that by understanding more about the different thought and emotional processes that occur we can tailor support packages to specific health conditions so that the best help is being offered.

What happens next?
Responses to the questionnaires will be collated and analysed. The results of the study will be written up and submitted as part of the portfolio for the D. ClinPsy qualification and it is hoped that the study will also be published in a scientific journal.

A summary of the results of the study will be made available to your medical clinic/posted in the waiting room in the coming months and online on the following website: (url tbc).

We hope that you feel satisfied with the information you have been provided and are glad you took part. However, if you have any concerns or wish to complain about any aspect of the study, you should initially contact the project lead, Zoe Mawby (Clinical Psychologist in Training, contact details below) who will do her best to address your concerns. You can also contact North Bristol NHS Trust Advice and Complaints Team (ACT, details below).

Once again, thank you for the time you spent completing the study.

Contact Details:
Zoe Mawby (Clinical Psychologist in Training at the University of Bath) z.mawby@bath.ac.uk
Supervised by Dr Cara Davis (Clinical Psychologist/Clinical Tutor at the University of Bath), Professor Paul Salkovskis (Programme Director, University of Bath), Dr Suzanne Whitehead (Clinical Psychologist, Southmead Hospital) and Dr Kate Druett (Clinical Psychologist at Southmead Hospital)

Advice and Complaints Team (ACT), Beaufort House, Beaufort Way, Southmead Hospital, Bristol, BS10 5NB.
Tel: 0117 414 4569. Email: complaints@nbt.nhs.uk

REC Approval Letter

Gwasanaeth Moeseg Ymchwil
Research Ethics Service

WALES REC 7
PO Box 108
Building 1
St David's Park
Jobswell Road
Carmarthen
SA31 3WY

Tel: 01267 225045
Email: sue.byng@wales.nhs.uk

Please note: This is the favourable opinion of the REC only and does not allow you to start your study at NHS sites in England until you receive HRA Approval

Miss Zoe Mawby
Trainee Clinical Psychologist
Taunton and Somerset NHS Foundation Trust
10 West Psychology Building
University of Bath
Claverton Down
Bath
BA2 7AY

13 April 2017

Dear Miss Mawby

Study title:	**Psychological Reactions to Physical Illness**
REC reference:	**17/WA/0094**
Protocol number:	**N/A**
IRAS project ID:	**216580**

Thank you for your emails responding to the Proportionate Review Sub-Committee's request for changes to the documentation for the above study.

The revised documentation has been reviewed and approved by the sub-committee.

We plan to publish your research summary wording for the above study on the HRA website, together with your contact details. Publication will be no earlier than three months from the date of this favourable opinion letter. The expectation is that this information will be published for all studies that receive an ethical opinion but should you wish to provide a substitute contact point, wish to make a request to defer, or require further information, please contact please contact hra.studyregistration@nhs.net outlining the reasons for your request.
Under very limited circumstances (e.g. for student research which has received an unfavourable opinion), it may be possible to grant an exemption to the publication of the study.

Confirmation of ethical opinion

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation as revised.

Appendix K

HRA Approval Information

NHS
Health Research Authority

Miss Zoe Mawby
Trainee Clinical Psychologist
Taunton and Somerset NHS Foundation Trust
10 West Psychology Building
University of Bath
Claverton Down
BA2 7AY

Email: hra.approval@nhs.net

09 May 2017

Dear Miss Mawby

Letter of HRA Approval

Study title:	**Psychological Reactions to Physical Illness**
IRAS project ID:	**216580**
Protocol number:	**N/A**
REC reference:	**17/WA/0094**
Sponsor	**University of Bath**

I am pleased to confirm that **HRA Approval** has been given for the above referenced study, on the basis described in the application form, protocol, supporting documentation and any clarifications noted in this letter.

Participation of NHS Organisations in England

The sponsor should now provide a copy of this letter to all participating NHS organisations in England.

Appendix B provides important information for sponsors and participating NHS organisations in England for arranging and confirming capacity and capability. **Please read *Appendix B* carefully**, in particular the following sections:

- *Participating NHS organisations in England* – this clarifies the types of participating organisations in the study and whether or not all organisations will be undertaking the same activities
- *Confirmation of capacity and capability* - this confirms whether or not each type of participating NHS organisation in England is expected to give formal confirmation of capacity and capability. Where formal confirmation is not expected, the section also provides details on the time limit given to participating organisations to opt out of the study, or request additional time, before their participation is assumed.
- *Allocation of responsibilities and rights are agreed and documented (4.1 of HRA assessment criteria)* - this provides detail on the form of agreement to be used in the study to confirm capacity and capability, where applicable.

Further information on funding, HR processes, and compliance with HRA criteria and standards is also provided.

Appendix L

Instructions to Authors/Submission Guidelines for British Journal of Health Psychology

1. Circulation

The circulation of the Journal is worldwide. Papers are invited and encouraged from authors throughout the world.

2. Length

Papers describing quantitative research (including reviews with quantitative analyses) should be no more than 5000 words (excluding the abstract, reference list, tables and figures). Papers describing qualitative research (including reviews with qualitative analyses) should be no more than 6000 words (including quotes, whether in the text or in tables, but excluding the abstract, tables, figures and references). The Editors retain discretion to publish papers beyond this length in cases where the clear and concise expression of the scientific content requires greater length.

3. Editorial policy

The Journal receives a large volume of papers to review each year, and in order to make the process as efficient as possible for authors and editors alike, all papers are initially examined by the Editors to ascertain whether the article is suitable for full peer review. In order to qualify for full review, papers must meet the following criteria:

• the content of the paper falls within the scope of the Journal

• the methods and/or sample size are appropriate for the questions being addressed

• research with student populations is appropriately justified

• the word count is within the stated limit for the Journal (i.e. 5000 words, or 6,000 words for qualitative papers)

4. Submission and reviewing

All manuscripts must be submitted via Editorial Manager. The Journal operates a policy of anonymous (double blind) peer review. We also operate a triage process in which

submissions that are out of scope or otherwise inappropriate will be rejected by the editors without external peer review to avoid unnecessary delays. Before submitting, please read the terms and conditions of submission and the declaration of competing interests. You may also like to use the Submission Checklist to help your prepare your paper.

5. Manuscript requirements

• Contributions must be typed in double spacing with wide margins. All sheets must be numbered.

• Manuscripts should be preceded by a title page which includes a full list of authors and their affiliations, as well as the corresponding author's contact details. You may like to use this template. When entering the author names into Editorial Manager, the corresponding author will be asked to provide a CRediT contributor role to classify the role that each author played in creating the manuscript. Please see the Project CRediT website for a list of roles.

• For articles containing original scientific research, a structured abstract of up to 250 words should be included with the headings: Objectives, Design, Methods, Results, Conclusions. Review articles should use these headings: Purpose, Methods, Results, Conclusions. As the abstract is often the most widely visible part of your paper, it is important that it conveys succinctly all the most important features of your study. You can save words by writing short, direct sentences. Helpful hints about writing the conclusions to abstracts can be found here.

• Statement of Contribution: All authors are required to provide a clear summary of ‘what is already known on this subject?’ and ‘what does this study add?’. Authors should identify existing research knowledge relating to the specific research question and give a summary of the new knowledge added by your study. Under each of these headings, please provide 2-3 (maximum) clear outcome statements (not process statements of what the paper does); the statements for 'what does this study add?' should be presented as bullet points of no more than 100 characters each. The Statement of Contribution should be a separate file.

• Conflict of interest statement: We are now including a brief conflict of interest statement at the end of each accepted manuscript. You will be asked to provide information to generate this statement during the submission process.

• The main document must be anonymous. Please do not mention the authors' names or affiliations (including in the Method section) and always refer to any previous work in the third person.

• Tables should be typed in double spacing, each on a separate page with a self-explanatory title. Tables should be comprehensible without reference to the text. They should be placed at the end of the manuscript but they must be mentioned in the text.

• Figures can be included at the end of the document or attached as separate files, carefully labelled in initial capital/lower case lettering with symbols in a form consistent with text use. Unnecessary background patterns, lines and shading should be avoided. Captions should be listed on a separate sheet. The resolution of digital images must be at least 300 dpi. All figures must be mentioned in the text.

• For reference citations, please use APA style. Particular care should be taken to ensure that references are accurate and complete. Give all journal titles in full and provide doi numbers where possible for journal articles. For example:

Author, A., Author, B., & Author, C. (1995). *Title of book.* City, Country: Publisher. Author, A. (2013). Title of journal article. *Name of journal, 1,* 1-16. doi: 10.1111/bjep.12031

• SI units must be used for all measurements, rounded off to practical values if appropriate, with the imperial equivalent in parentheses.

• In normal circumstances, effect size should be incorporated.

• Authors are requested to avoid the use of sexist language.

• Authors are responsible for acquiring written permission to publish lengthy quotations, illustrations, etc. for which they do not own copyright. For guidelines on editorial style, please consult the APA Publication Manual published by the American Psychological Association.

• Manuscripts describing clinical trials are encouraged to submit in accordance with the CONSORT statement on reporting randomised controlled trials.

• Manuscripts reporting systematic reviews and meta-analyses are encouraged to submit in accordance with the PRISMA statement.

• Manuscripts reporting interventions are encouraged to describe them in accordance with the TIDieR checklist.